E/ECA/TRANS/33
Part II

UNITED NATIONS TRANSPORT AND COMMUNICATIONS DECADE IN AFRICA, 1978-1988

REPORT OF A REGIONAL SURVEY
ON MANPOWER AND TRAINING
NEEDS IN ALL TRANSPORT MODES

Part II Consolidated Report

ECA
December 1986

UNITED NATIONS

E/ECA/TRANS/33

UNITED NATIONS ECONOMIC COMMISSION
FOR AFRICA

REPORT OF A REGIONAL SURVEY ON MANPOWER AND TRAINING NEEDS IN TRANSPORT

PART II: CONSOLIDATED REPORT

TABLE OF CONTENTS

CHAPTER		PAGE
I.	INTRODUCTION	1
	- Background	1
	- Terms of Reference	4
	- Methodology	5
	- Content of the report	5
II.	SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS..	6
	- General	6
	- Roads and Road Transport	7
	- Railways and Rail Transport	12
	- Inland Water Transport	19
	- Air Transport	26
	- Maritime Transport	30
III.	ROADS AND ROAD TRANSPORT	40
IV.	RAILWAYS AND RAIL TRANSPORT	52
V.	INLAND WATER TRANSPORT	67
VI	AIR TRANSPORT	79
VII.	MARITIME TRANSPORT	88
ANNEXES		
Annex 1	Terms of Reference	
Annex 2	List of Countries Visisted and Officials Met during field Missions	
Annex 3	List of Acronyms and Abbreviations	
Annex 4	Sample Railway Management Performance Improvement Course	
Annex 5	Sample Content of Training of Trainers Basic Course	
Annex 6(a)	TRAINMAR Developed Courses	
Annex 6(b)	Improving Port Performance (IPP) Course	
Annex 6(c)	Mombasa Bandari College Course in Management of Port Operations	
Annex 7	Courses Offered by AMTA	
Annex 8	Sample of Courses Offered by ESAMI and relevant to Transport Sector	
Annex 9(a)	Programme for Conversion of selected Maritime Transport Institutions into subregional centres.	
Annex 9(b)	Critical Path Network for Conversion	
Annex 10	Bibliography	

I. INTRODUCTION

(a) Background

1. The objective of this study in the longer term is to improve the knowledge and skills of senior and middle management, administration and technical staff in all modes of transport, including the upgrading of trainers, training facilities, and curricula of the existing transport institutions, which in turn will contribute to the improvement of transport in the region.

2. Improved transport conditions play a key role in determining the scope and direction of economic development in the developing countries and in creating within and among them new economic, social and political opportunities. This critical importance lies behind UN General Assembly's recognition which led to the proclamation of the years 1978-1988 to be a Transport and Communications Decade in Africa.

3. The ECA was designated as the lead agency and made responsible for developing a "Global Strategy" and a "Plan of Action". The 'Global Strategy' is expected to be the motor for:-

- Promoting the integration of transport and communications infrastructures with a view to furthering intra-African trade;
- Harmonizing national regulations and eliminating physical and other barriers to the movement of goods and people within Africa;
- Increasing the operational efficiency of the various transport systems;
- Opening up landlocked countries and isolated regions;
- Stimulating greater use of African human and material resources in the sector;
- Promoting research into, and disseminating knowledge about, transport and communications techniques appropriate to the African context.

4. In reinforcing the previous instruments for evolution of global strategy and in a further effort to transform the underlying philosophies of action in programme of action, the General Assembly on 19th December 1983, adopted Resolution 38/150 which amongst others, requested the Executive Secretary of ECA to prepare, in collaboration with the relevant organizations of the UN system, a study of the training and manpower needs of all African countries for all modes of transport and communications.

5. Concomitant with the foregoing efforts, many African governments have shown the concern about improving transport and communications conditions in their respective states, and to this end have often allocated about 20 per cent of their limited public sector funds into the sector annually for the past decade.

6. Whereas much has been done towards improving the various transport systems, much still remains to be done. The situation becomes gloomier when cognizance is taken of the insufficiency of resources which will be available in the future (i) to provide additional capacity needed to meet growing transport demands, and (ii) to rehabilitate, replace and repair transport infrastructure systems and equipment fleets which grew rapidly from early '60s to mid '70s but which have been undermaintained for the past few years.

7. In view of the very bliqe prospects of availability of increased financial resources, the transport sector must strive towards self reliance through increased efficiency and productivity and by achieving higher levels of cost recovery from services it provides. This has led ECA and World Bank to stress six areas where efforts need to be concentrated in the transport sector for the remainder of the 1980's:-

- greater realism and rigor in planning and investment choice, with much more attention to project timing, to obtaining high yields to re-invest surpluses, and to the recurrent expenditure implications and new investment;

- better performance in planning, budgeting, physical execution of maintenance, especiallly in the highway sector. This concern involves, among other things, increased attention to standardization of equipment makes; to the setting and enforcement of vehicle-axle load standards; and to road safety;

- higher efficiency and effectiveness by transport policy bodies, planning agencies and operating enterprises with a special emphasis on financial viability and discipline (including reducing subsidies);

- improved rural transport networks and services particularly through wider use of low-cost transport aids and labour-based construction and maintenance technqieus as well as increased participation by local rural people in the planning and financing of improvements;

- increased economy and efficiency in the use of energy with particular attention to the absolute and relative levels of prices for different transport;

- closer and more direct support to the expansion of international and inter-regional trade through the better planning of intermodal transport and the introduction of trade facilitation measures which have been applied successfully elsewhere, e.g. in vehicle licensing and insurance harmonisation of operating rules and technical standards, reciprocity agreements; simplification of customs procedures etc. measures which facilitate transport movement in Africa and lead to the sound development of multimodal transport 1/.

8. The above emphasis lays greater focus on performance improvement that is, 'doing more with less', necessitating better or improved manpower utilisation through improved manpower policies, intensified and appropriate training and in global terms a more optimal utilisation of existing facilities. This study is accordingly in furtherance of this broad objective.

9. While increased and better management training is not the whole answer to closing the management and implementation gap existing in many countries, it is an important part of the answer. To increase the effectiveness of management training, four interrelated actions have been suggested (see World Dev. Report 1983).

- wider use of carefully thought out training policies and plans, based on realistic assessments of training needs;

- better use of existing training facilities rather than investment in building new ones;

1/ Accelerated Development in Sub-Saharan Africa: An Agenda for Action, World Bank, Washingron D.C. 1981), and annual progress reports thereon.

- closer linkage of training with career development to encourage trainers and their supervisors to take training more seriously;

- greater international co-operation on training through, e.g. assistance with instructors and the involvement of local training institutions in aid financed project related training activities.

10. These suggestions re-affirm the emphasis in the Lagos Plan of Action on "the importance of trained manpower as an input to activities in the various production sectors and support services as well as in the education and training sector as the producer of skills and know-how for its own needs and for other sectors"[2/].

11. The dilemma in which most of developing countries find themselves in by way of trained and skilled manpower has been expressed by DIESA when in a report of 1982, it was stated that:

> "Most developing countries lack the facilities and instructors to train their transport personnel and must send these personnel to institutions far away in developed countries. This is a very costly practice which does not permit the countries to train sufficient personnel. Moreover, the training programmes provided overseas do not always suit the geographic environment and other conditions of developing countries"[3/]

12. The supply of skilled and well trained manpower must increase if African countries are to effectively play their growing role in the development of international transport. Thus there is an urgent need to improve the quality of human resources and training institutions in the sector.

13. African skilled manpower requirements in the transport sector cannot all be met by overseas educational and training institutions alone. A great deal of institutional improvements and expansion is needed in the region for all levels of manpower development.

14. Taking these points against the background of the requirements in the growth of the transport industry in the region, it seems reasonable to conclude that, whilst external assistance through executive manpower development would be of great benefit, the bulk of manpower shortage in transport will have to be solved by institutional arrangements within the region.

15. The strategy thus must be focussed onto the development of regional capability both in facilities and proficiency of manpower.

2/ OAU, Lagos Plan of Action

3/ UN Department of international Economics and Social Affairs (DIESA) 1982.

16. It is recognised that important contributions have been made by other international bodies such as UNCTAD (in dealing with the problems of landlocked countries and ports training), ICAO (in dealing with regional navigational networks and training). ILO (in addressing itself to labour intensive road construction and technical level training). However, much remains to be done in particular, as growing transport demands will create even a greater demand on skilled manpower not only for additional capacity but also for rehabilitation programmes.

17. Training has been for some time, recognised as an important instrument for human development. Staff, irrespective of their levels in the organisation, must possess the conceptual knowledge, skills and attitudes relevant to the performance of their jobs. However, the supply of training as an input is no guarantee that it will be effectively utilised at the macro level as well as at the individual level. From a policy standpoint, therefore, it is necessary to identify the preconditions necessary to ensure the effectiveness of training. This study has addressed itself to this aspect.

(b) Terms of Reference

18. The Terms of Reference required a summary report (technical publication) on manpower and training needs in the five modes of transport, that is, roads and road transport, railways and rail transport, inland water transport, inland water transport, air transport and maritime transport. The report, covering these modes, to contain the following:-

- An analysis of the present situation in manpower and training needs in each mode of transport and its effects on the performance of the respective modes;

- An inventory, by mode, of areas where bottlenecks on manpower and training requirements are critical, and proposals on how to fill existing and future gaps;

- Identification and analysis of the main constraints in manpower and training requirements by mode and an assessment of the present situation regarding the training institutions for high and middle level transport staff highlighting the availabilities of such institutions, the position with regard to the quality and quantity of their training equipment and facilities, including the types of trainers available and training methodologies employed;

- Determination of the level and types of training programmes required by mode, the target group to be trained (qualitative and quantitative) and the curriculum for each training category and target group;

- The long-term and short-term recommendations, by mode, on actions to be taken at national, subregional and regional levels by government ministeries, transport agencies, and training institutions to improve the present and future situation in meeting the demands for manpower and training needs in transport.

The detailed Terms of Reference for this study are included in the Report as Annex I.

(c) Methodology

19. The approach to the study included field missions undertaken by consultants to Kenya, Mauritius, Ethiopia, Tunisia, Seychelles, Tanzania, Ghana, Nigeria, Liberia,

Sierra Leone, Zambia, Zimbabwe, Burkina Faso, Swaziland, Egypt, Malawi, Mozambique, Botswana, Cote d'Ivoire, Madagascar, Cameroon, Congo, Zaire and Morocco. In addition, the following international/regional agencies/bodies were visited: UAR, ICAO, PMAESA, PMAWCA, AFRAA and ISCOS. Also visited were various transport training institutions and transport agencies. Details of all these, including officials met may be found in Annex 2.

20. During these missions questionnaires were used to elicit the reequired information. In addition personal interviews were undertaken.

21. Although the terms of Reference required both quantitative and qualitative presentation of requirements, the former has not been found possible. This is in view of the following factors:

(a) Presentation of quantitative findings requires either field missions to all the countries or completion of questionnaires by all the countries of the region. Many countries did not return completed questionnaires.

(b) Quantitative expressions could also have been derived from manpower models. It was felt that in the context of this study such models describing flows and stocks would have been misleading and confusing due to reliability. The use of models is only valid if there are regularities in the flows, persisting over a wide range of conditions, and forming assumptions of manpower plans. In the absence of reliable statistical data this trend was found not to obtain.

(c) Any attempt to present absolute global figures would have entailed the use of certain indicators such as tonnage, number of ships handled, traffic on the roads, length of roads in kilometers, passengers carried etc. to determine appropriate ratios. Such attempts would have been difficult to validate since in the region such systematic and formal relationships have never been taken into consideration for purposes of manning levels.

22. The approach, accordingly shifted to descriptive analysis of manpower situation, analysis of trends and utilization, identifying problem areas. These have included analysis of supply and demand problems at macro national level as well as micro occupational level. Sectoral bottlenecks have been identified as far as practicable. Findings have been based on broad areas of deficiencies and recommendations, therefore, relate to these broad groups as well as trained facilities.

(d) Content of the report

23. In the context of the Terms of Reference, the summary has covered manpower and training needs of senior and middle level management, administrative and technical staff in roads, railways, inland water, air and maritime transport. It has also attempted as far as possible, to shed light on the manpower and training requirements of the trainers in the various national, subregional and regional transport training institutions.

24. In this Report, which forms the second phase of a Sectoral study covering all transport modes, are set out analyses findings and recommendations concerning manpower and training needs in the five modes within the region.

II. SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS

1. GENERAL

25. The study has, in general, established that there is shortage of skilled manpower and inadequate training activities within the five modes of transport. The study has further established that, since there is adequate capacity in terms of infrastructure and facilities, the glaring poor performance of the sector must be due to poor utilization of resources, brought about by poor manpower policies or complete non-existence of such policies.

26. It is clear that developing new modern infrastructure alone will not produce "economic miracles" since Africa has already been 'opened up'. What is urgently required is the technical and managerial capability to maintain what is already there, and to set priorities right. High standards and professional behaviour must be maintained. It is recommended that attention be focused onto these.

27. The study has revealed that to a large extent, the above situation has been brought about by inherent institutional problems which have imposed considerable limits on the effective and efficient utilization of manpower, as well as on the impact of training on performance.

28. To alleviate the problems highlighted above, it is recommended that competent and appropriate authorities review the existing institutional arrangements within which most of the organizations or bodies have to operate with a view to modifying these to meet the enviromental and technological requirements vis-a-vis the operations and obligations.

29. Decision making structures should be made more flexible to allow the management organs control the affairs of the organisation. Manpower infrastructures should be re-designed such that they can facilitate the recruitment, development and retention of the right calibre of staff.

30. Such appropriate manpower infrastructures should be reflected in competitive terms and conditions of service, suitable schemes of service, proper training policies and attractive incentives and consciously developed career development programmes. In a nutshell there must be evolved proper manpower policies, which policies should be adhered to.

31. At national (ministerial) levels appropriate bodies with authority should be established with the main function of central manpower planning and utilisation in the five modes. Such co-ordinating authority should work in close liaison with manpower units in individual modes at organization level.

32. At sub-regional level steps should be taken to achieve manpower capability through co-operation and sharing existing resources and facilities. This should be reflected in the use of subregional centres and strengthening joint endeavours in devleopment of training facilities.

33. Priority should be given in development of trainers both at national and subregional levels. In doing so, measures should be taken to build on the core foundation that has been laid by some agency assisted projects such as TRAINMAR and IPP.

34. In these endeavours Africa cannot go it alone. Continued co-operation should be maintained with the various agencies, international organizations and overseas institutions in the field of manpower development and training.

2. ROADS AND ROAD TRANSPORT

Institutional framework

35. For sometime to come the road is likely to remain the dominant mode of transport in Africa. Yet the road network system comparatively underdeveloped in terms of reach, network density, design standards and surface condition and will require extensive investment by states for upgrading and maintenance.

36. A pre-requisite for an effective roads department is the development of appropriate institutional organs that are able to execute the functions of planning, surveying, design, materials management, construction, maintenance, research and administration

37. It is recommended that at national levels, appropriate and relevant authorities should review existing institutional arrangments with a view to establishing or strengthening the functional groups of operations, roads planning, survey and design, materials research, construction, maintenance and administration divisions.

38. It is further recommended that the competent authorities review the structural set up at ministerial levels with a view to streamlining responsibilities for various functions. The human resources department should be assigned responsibilities for manpower planning and training. In doing so there must be established a proper human resource department, staffed with qualified personnel

39. The road transport fleet revolve around individual road transport companies. In cases of private ownership organisation structures are geared towards profit making objective. While those owned by the states operate on a social welfare facility basis. In both cases, there is little evidence of attempts to formalise the institutional arrangements to cater for the broader objectives of resource utilisation and management.

40. It is recommended that appropriate steps be taken to institutionalise policy framework which would provide guidelines for manpower planning and development.

41. The study identified the following shortcomings in the organizational arrangements for road transportation:-

(a) The greater emphasis placed on administration rather than management of road systems.

It is recommended that African countries should make concerted efforts to professionalize their ministries of transport and/or works by employing more transport specialists.

(b) The ineffectiveness of existing machinery for policy making, planning and co-ordination.

There should be effective co-ordination among the various modes.

42. In addition African countries should evolve clear, co-ordinated and comprehensive national transport policies, giving specific and strategic guidelines to transport development.

43. It is also recommended that while African countries are taking steps to upgrade and rehabilitate the road networks, such actions should include manpower component, that is, the built-in provision for development of skilled manpower.

Manpower utilization

44. The bad state of infrastructure is exacerbated by shortage of professional staff, particularly experienced engineers in design, construction managment, planning and maintenance. Ministries are unable to retain well qualified professionals becuase of the generally poor working conditions, low salaries, lack of incentives and inconsistent promotional policies.

45. One way of improving the manpower utilisation in ministries is to evolve an improved scheme of service, introduce incentives, base promotions on known personnel policies which give weight to qualifications, training and performance and offer more competitive salaries for professional staff.

46. The study revealed that most of the ministries concerned with roads and road transport hardly undertook any formal manpower planning, or appraisal of staff performance.

47. It is recommended that with the proposed establishment of a central manpower control unit at ministry level, appropriate steps be taken to ensure that manpower forecasts and projects for the needs of road transport are prepared within the context of manpower plans.

48. In addition, staff performance appraisal schemes should be introduced. These should form one source of identifying training needs of staff on a continuous basis.

49. At ministry level, it was observed that a rather large number of expatriates are employed to cater for the shortfall in professional staff.

50. Whereas this is an acceptable stop-gap measure, it should be considered only a short term measure, and steps should be taken to select counterpart local staff who should be exposed to all the professional practices and functions with a view to taking over from expatriates.

Training activities

51. With respect to road transport industry, about 50 per cent is in the hands of private enterpreneurs. In majority of countries, there is little or no training available to such staff.

52. It is considered that their performance would be improved if some short training programmes in specific areas of road fleet operations and management are periodically organized for them.

53. Since the number in the category, of senior managers, professional and technical staff is only about 5 per cent, appropriate courses should be organised at national level under the auspices of the ministry responsible for transport. This should be co-ordinated by the proposed central manpower control division at the ministry.

54. With regard to road infrastructure, planning, maintenance and management, it is observed that limited use has been made of such subregional institutions like ESAMI.

55. It is recommended that greater use be made of ESAMI which organises a variety of courses in transport. Such courses are contained in Annex II.

56. It has been shown that most professionals receive their postgraduation training on the job or through fellowship financed attachment to overseas firms. This type of training has been effective, and it is recommended that continued used be made of these arrangements.

57. In many African countries the overall management of the training function is poor with the responsibility for activities fragmented between personnel and technical units. Budgets for training are often non-existent or inadequate, leading to poor manpower utilisation.

58. It is recommended that in those ministries where there are no training units, urgent measures be taken to establish the same and should work in close liaison with the central manpower control units. The training unit should have the responsibilities for budgeting, planning and managing training activities.

59. Training plans should be within the training policies framework and should be implemented as an integrated scheme within the personnel policies governing career development and promotional programmes.

60. Many of the ministries responsible for road infrastructure are unable to offer training to lower and middle management staff despite the existence of some in-house facilities for skill development. Often this is due to inadequate financial allocations, poor training equipment and shortage of qualified trainers.

61. As a way of alleviating these problems, it is recommended that financial provisions and loans for infrastructure development, rehabilitation and maintenance should as far as possible contain a training component and that this component should be utilised to support the in-house training activities.

Training facilities

62. The most unique feature of training in road and road transport industry is the absence almost anywhere in Africa, of institutions solely devoted to management, professional and administrative courses. The only exception is in Tanzania where the National Institute of Transport in Dar-es-Salaam is well developed.

63. It is recommended that efforts be taken towards establishing at least one institution at national level to cater for each country's training needs in the industry.

64. In-house training institutions are a very useful vehicle for meeting training needs where organisations employ large numbers to carry out routine tasks and where there are many entrants joining organisations each year.

65. It is therefore recommended that at departmental or organization level these in-house facilities should be reconditioned and re-activated to provide more task oriented basic skill upgrading courses. They should be accorded adequate physical facilities, training materials and skilled trainers. Such trainers need not be full time, but should be selected from in-serving staff and be put through basic trainers course in methodology and pedagogics.

66. Most of the countries covered in this study have at least one institute of public administration and management. These institutes do organise general management courses for senior, middle and junior managers. They also offer long courses in Accountancy, Administration etc. leading to recognised professional qualifications. It is recommended that greater use be made of these institutions for development of general management and professional capability.

Training requirements

67. Many of the larger road transport enterprises, both state and private owned are facing serious managerial problems. Training of the top and middle level management in specific areas of road transport management is one of the inputs urgently required to steer them back into high productivities.

68. In the Transport and Public Works Ministries as well as public transport companies, adequate training is required for transport planners, transport engineers, traffic managers, transport economists, mechanics, drivers and traffic operating personnel.

69. The following three broad groups have been identified for training:-

(a) Those needed in the ministries of transport, works and planning;

(b) Those in public passenger and goods transport companies;

(c) Those in road maintenance specialization - here the critical factor is the lack of technicians.

70. It is recommended that:

(i) For the training of transport economists, transport planners, public and goods transport personnel and some senior administrators (in various ministries of transport and works) the establishment of transport institutes is called for. At the moment, skills are lacking and emphasis should be put on upgrading of skills of the existing staff.

(ii) As an interim measure and to augment other training measures, it is recommended that a special fund be created to finance a technical advisory service programme within the Decade programme. This would not be a permanent feature but would be placed on on-the-job training and demonstration projects;

(iii) For the training of professional engineers, it is recommended that various governments continue to sponsor trainees in the existing universities

71. Finally, it is recommended that appropriate in-house or tailor made courses covering the following topics be organised for the managerial, and technical staff.

The following courses would help to close the gap:-

Roads infrastructure

- Construction projects management
- Construction arbitration
- Project implementation
- Road maintenance planning and management
- Transport investment planning
- Management of road safety programmes
- International procurement and contract negotiations
- Information systems for planning and management in transport

Road transport

- Physical distribution management
- Rural transport planning and operations
- Transport investment planning
- Operations maintenance and management of road transport fleets
- Management of road safety programmes
- Marketing of transport and travel services.

For both roads infrastructure and road transport

- Senior level roundtable on transport policy
- Trade facilitation and documentation improvement
- Human resources management and development
- Advanced general management
- Industrial relations
- Manpower planning
- Stock control and warehouse management techniques
- Purchasing and supplies management
- Inventory forecasting techniques
- Financial management
- Accounting and finance for non-finance managers
- Financial planning and control
- Investment management

(All the courses enumerated above are regularly run at ESAMI)

3. RAILWAYS AND RAIL TRANSPORT

INSTITUTIONAL FRAMEWORK

72. The study established that the railways continue to be one of the most important means of inland transport accounting for upto 60 per cent of all inland freight movements and upto 50 per cent of passenger movements. Despite this, the railways showed poor economic and operational performance. This can be attributed partly to the ageing rolling stock, and partly to economic constraints and inherent manpower problems.

73. All the railways in Africa are owned by respective governments, through appropriate ministries. They have the responsibility of formulating railways transport policies and for establishing adequate machinery for policy implementation.

74. It is recommended therefore, that at national level, a central manpower control unit be established which will, amongst others perform overseeing function with regard to manpower policies formulation and implementation.

75. The study also showed that many African railways have embarked on rehabilitation and modernization programmes for infrastructure and rolling stock. It is recommended that concomitant with these programmes attention should be paid to :

(a) Design and evolution of suitable manpower plans within the broader manpower policy;

(b) Integration of training policy with the broader organizational personnel policies;

(c) Establishment at the organizational level of Human Resource Department with two subunits for :

training
human resource development.

It is considered that the above measures will provide a framework within which various manpower utilisation activities can be planned and implemented in a systematic manner.

76. The survey revealed that problems arising from inadequate institutional structures and policies had a great impact on the performance of the railways. There is therefore urgent need to institute certain institutional adjustments, including :

- Creation of well-balanced organization structure to meet the management requirements in terms of management, finance, materials and operations;

- Definition of a legal basis for the application of a consistent manpower and training policy;

- Formulation of sound management policies and systems to meet the foregoing requirements;

- Creation of appropriate manpower infrastructures such as job descriptions, manpower plans, performance appraisal systems, staff development plans, and training policies;

- Evolution and implementation of management systems such as operations, financial and administrative manuals which specify procedural requirements for various management functions such as recruitment and promotions.

77. To provide a basis for focussing attention to critical areas with bottlenecks, and to establish standards of performance for job positions, it is recommended that the following measures be taken in the short term :

- Job analysis to provide the necessary job requirements in terms of skills and proficiencies;

- Setting up of performance standards for each job together with key performance indicators;

- Standardisation of establishment levels commensurate with the key performance indicators;

- Proper schemes of service;

- Introduction of Staff Performance Appraisal Systems;

- Preparation of career development programmes within the requirements of the scheme of service.

78. In certain situations the survey showed that some of the externally generated problems breed inefficiency. Situations where top management is hemmed on all sides by rigid government control, allowed very little flexibility for dealing with the dynamics of changing environment.

79. It is recommended that the government authorities consider creating conditions which permit the existence of a mix of institutional features which allow effective autonomy to plan and adapt institutional strategies.

80. The study observed that there were too frequent changes in top management postions. This had not helped to build a core of experienced and qualified managers. Railways are by and large fairly complex organisations. It is recommended that top management be given enough time to learn the industry, its culture and demands by being accorded longer tenures through minimising of such changes.

81. Cases exist of joint ownership of railways. In such situations, it was observed, political interferences had a negative effect on performance. It is recommended that partner states should minimise such interference and instead should formulate policies to ensure that the organisation remains independent of direct influence of any one partner state and that the organisation justifies its own existence.

Furthermore, in cases of joint ownership with multinational workforce, steps should be taken to ensure that staff enjoy uniform terms and conditions of service.

MANPOWER UTILIZATION

82. Overmanning and undermanning occur in many African railways at different levels. This is mainly because of absence of any manpower planning and poor manpower utilisation policies.

83. It is recommended that human resource development units (or manpower planning departments) having been established within the railways organisation, should, in liaison with the central manpower control unit evolve appropriate manpower plans which should have linkages with the succession or staff development programmes. Initially such a plan could be based on simple renewal approach.

84. The main areas with manpower shortages are the technical departments, at the levels of middle management, professional staff and technicians. These are in terms of numbers. Skill deficiencies are also pronounced in Planning, supplies, personnel, marketing and accounting functions.

85. It is recommended that within the context of an acceptable manpower plan and with the job position requirements taken into account, qualified staff should be recruited from the market (i.e. graduates from universities) and be placed in planned training. Also selection should be done from in-serving staff to retrain best performers for eventual skill up-grading and promotion.

86. Common to most African railways (except in Ivory Coast and Cameroon), is the absence of any no attempt to relate manning levels to key performance indicators such as traffic volumes, (passenger and freight), length of network, rolling stock etc.. African railways should follow the example of European and North American railways where steps taken to relate manning levels to key indicators have paid off in the long run.

87. For senior and middle management as well as professionals, turnover appeared rather high mainly because the railways are now outcompeted by transnationals which are able to pay higher salaries with better additional benefits. It is recommended that to be able to retain qualified professional staff salary levels be reviewed with a view to creating some built in flexibility for management to compete in the labour market.

88. The study brought out certain critical deficiencies in manning which arose either as a result of omission from establishment of certain vital positions or inadequate structures. The functions listed below should be given priority in establishment :

- Planning
- Marketing and commercial activities
- Management information systems
- Work study and O & M
- Cost accounting
- Stores control

Expatriates

89. Many African railways do resort to use of expatriates to fill the vacancies created by manpower shortages at professional levels. These are sometimes retired railwaymen.

However, it is recommended that where railways organisation resort to expatriates the following should be taken into consideration:

- Care should be taken during selection of relevant skill and experience;
- Counterpart local staff must be identified to work alongside the expatriates;
- Within the context of the manpower plan, there must be planned rundown of expatriates.

TRAINING ACTIVITIES

90. Post-independence management of African railways placed emphasis on vocational training for technicians and low level staff rather than high level managerial and professional staff. It is recommended that a corporate training policy be evolved by each of the railways covering all categories of staff.

91. If training is to be effective, African railways must ensure that the personnel policies have strong linkages between career development and training, and the career prospects of the trainers themselves must be improved. It is also necessary to link training to performance appraisal systems and promotion policies to motivate staff to make better use of training.

92. The impact of training that has been provided for senior and middle management and semi-professional staff has had certain shortcomings:

- programmes initially not designed to meet identified objective in terms of skill deficiency
- poor educational background of the trainees hence incompatibility of course content and individual ability
- inappropriate design of courses
- lack of qualified trainers for in-house programmes
- absence of any evaluation mechanisms.

93. It is recommended that all future training be based on identified training needs, and that in designing the courses, cognizanse must be taken of the qualifications of individual trainees.

Identification of training needs must be seen as an on-going activity at these levels:

- organizational
- functional
- individual

94. Most training activities still lack policy framework and commitment of top management. For management training to be effective it is recommended that it should include:

- Training objectives and policy guidelines
- Responsibility for training
- Determination of training requirements
- Training plans and facilities
- Training budget
- Mechanics for evaluation

TRAINING FACILITIES

95. Each of the railways administrations covered by this study has a training centre of some sort. In most cases they are for semi-skilled staff, clerical staff and artisans. Often they are not well equipped in terms of manpower, teaching materials and equipment.

96. It is recommended that because the existence of these training centres is a useful feature, measures be taken to rehabilitate them by providing adequate facilities in terms of equipment, physical facilities and trainers.

97. There are no specialised railway training schools in the region for senior staff. They have always been trained outside the continent.

It is recommended that active support be given to the proposed commissioning of the four sub-regional training centres at Brazzaville (Congo), Wardan (Egypt), Kabwe (Zambia) and Zaria (Nigeria). These will provide courses for senior management staff.

98. Up till now the only regional institution offering courses in Transport management is ESAMI. Majority of these courses are of 4-8 weeks and are fairly relevant to the railways management. African railways should make increased use of these courses as they are not only cheaper but are more relevant to the immediate environment.

TRAINING REQUIREMENTS

SHORT TERM

99. In the short term it is proposed that organisations should concentrate on the basic foundation building through design and creation of sound intitutional framework. These will include :

- At Ministry level, the creation of a Central Manpower Control Unit with specific function relating to manpower utilisation in the various modes;
- Creation of well-balanced organisation structures to meet the railways operational and management requirements. These should include a Training Department to deal with human resource development;
- Formulation of sound management policies and systems covering finance, manpower and operations;
- Creation of manpower infrastructures such as job description, manpower plans, performance appraisal schemes, training policies and career development plans.

INTERMEDIATE TERM

100. In the intermediate term (3-5 years) specific activities will have to be undertaken to improve performance of staff through training.

Senior Management

Having evolved appropriate management policies, systems and procedures, senior management must be well prepared to implement and monitor them. Senior management programes in form of seminars or workshops (lasting 3-8 weeks) should cover the following topics:

Action centred leadership
Work improvement methods
Human motivation
Delegation
Communication and management information systems
Use of computers
Group dynamics
Management accounting
Team building
Performance appraisal
Manpower planning
Training needs analysis
Problem solving
Decision making

In addition to the above general and conventional courses, the following subjects should be covered by workshops and in-house courses:

- Transport economics
- Management and operation of rail transport
- Law and procedures governing transport
- Study and analysis of transport policy
- Transport statistics
- Finance and financial analysis
- Changes in railway technology
- Statistics and costing
- Co-ordination of transport activities
- Commercial aspects of railways operations
- Preventive maintenance.

Middle Management:

Seminars or workshops for this category should include the following topics:

- Action centred leadership
- Human motivation
- Barriers to communication
- Team building
- Appraisal and coaching

- Industrial relations
- Job design
- Discipline
- Delegation
- Using computers
- Report writing
- Selection techniques
- Negotiation skills
- Problem solving
- Decision making
- Safety and accident prevention
- Changes in railway technology

Professional oriented Vocations

- Data processing Operations Management for Computer Applications
- Stock control and Warehouse Management for Stores and Supplies Personnel
- Management Analysis and Operations Research for Planners and Administrators
- Production Management for Production/Maintenance Engineers
- Manpower Development for Personnel Managers
- Training of Trainers for Management/Supervisory Trainers

General

During this time frame it is also recommended that each railways organization arranges for at least one in-house programme on "Railways Management Performance Improvement Workshop".

DESIGN AND DECISION MAKING LEVEL

Because of variations and uncertainities in demand, important planning and operational problems arise and hence there is need to study improvements, their justifications and the allocation of investment funds.

At the decision-making level, therefore, planning and financial capabilities are crucial.

These are essential to the administrative mechanism of the networks. There have to be qualified, experienced men in these posts. In general, senior staff recruited straight from university to occupy high level posts in these areas must follow an additional training before being given responsibility.

4. INLAND WATER TRANSPORT

Institutional framework

101. The inland water as a mode of transport has a great potential for early development which should provide carriage of industrial and bulk commodities and ease passenger problem at relatively lower costs than other transport modes. Yet the shortage of trained manpower seems to be a critical constraint to a more effective utilization of the existing waterways, equipment and port facilities in most African countries. The shortage of highly qualified personnel in addition to financial constraints, impede the further development of the inland water navigation.

102. It is recommended that concerted efforts be made to raise the level of training and manpower supply from that of a critical constraint to that of a mobilizing factor for inland water transport development.

103. As the availability of qualified personnel is one of the main factors determining the efficient management and operation of existing and future inland water transport facilities, it is recommended that efforts to train qualified manpower in the high and middle management levels be undertaken in the following institutions:

- In the ministry responsible for transport, there be established a division specifically to deal ith inland water transport policy development, planning, moderation of rules and regulations and dealing with investments;

- The unit should be staffed with qualified personnel who should be able to implement policy decisions and monitor the performance of the mode.

- At the inland water ports there should be a compliment of qualified personnel at management and operational level.

104. The study showed that there is lack of co-ordination at national levels of activities of inland waterways and their utilization. To ensure such co-ordination, it is recommended that an inland waterways co-ordination authority be established at national level. It is further recommended that such an authority be staffed with qualified personnel who would be able to deal with development and operational problems.

MANPOWER PLANNING AND UTILIZATION

105. The following problems have been identified with regard to manpower utilisation and training:-

- Personnel at professional and technical level employed in the inland water transport tend to command lower status when compared to those in the maritime transport;

- In many countries the life and working conditions are relatively unfavourable for the crew and this tends to cause high turnover, making any efforts at training, futile.

106. To ameliorate these problems, it is recommended that the terms and conditions of service of inland water transport personnel be harmonised with those of the maritime transport within the provisions of regulations in force.

107. It has been observed that the general level of education amongst the staff engaged in inland water transport is very low. This necessarily makes it difficult to prepare upto date training programmes. In addition, the success of any training depends on the calibre of the trainees.

108. To uplift the basic capability of inland water transport personnel, it is recommended that immediate measures be taken to prepare proper schemes of service which will lay down minimum educational and skill requirements for entry into each vocation. Such Scheme of service once implemented, should be strictly adhered to.

109. Owing to the absence of any manpower policies, the manning scales in the vessels are so arbitrary that they cannot be related to any criteria or indicator. Staff hold high positions with lower qualifications. It is recommended that proper manpower policies be evolved, with applicable manpower plans and infrastructures. Staff should be employed in accordance with qualifications and licences held.

Training activities

110. The availability of qualified staff at managerial level must be given priority. In this instance, it is recommended that:

- A selection be made of those staff with the required educational qualifications and record of good performance in employment in inland water transport for the past three years and be sent for one year training in identified overseas institutions. Amongst the institutions recommended are Rhenania in Federal Republic of Germany and the French inland water institute at Strassbourg, amongst others to provide them with basic grounding in modern management and operation of inland water transport.

- In co-operation with identified developed countries and with financial assistance from donor agencies short training sessions and seminars of up to 1-3 months be organised periodically. These would cover selected topics.

- Specially tailored courses be organised to meet the requirements of inland water transport at a subregional institution like ESAMI.

- Member States be encouraged to make use of existing inland water transport institutions like CTIIWT in Cairo or IWT school of Lake navigation at Mwanza, Tanzania.

- Eligible secondary school graduates be selected for long professional training on fellowships abroad. Such training should be of about five years' duration. At the end of such formal training the trainees should then be attached to inland water transport organisations for periods of upto one year.

111. There is an acute shortage of qualified trainers, to train the vessels crew and maintenance personnel. It is recommended that as far as the trainers are concerned, measures be taken to select staff from amongst the most capable of inserving ones, and send them to selected overseas institutions where they can undergo training in methodology and pedagogics..

112. As a stop gap measure it is recommended that expatriate trainers be recruited to prepare the necessay curricula and sylabbi as well as teaching materials and aids. They would also undertake training of counterpart local staff who would take over from them at the end of their contracts.

113. The study revealed that currently there is very little observance of inland water regulations by the users of inland waterways. It is accordingly recommended that special training sessions be conducted at national levels to acquaint the participants with rules and regulations and their applications and enforcement.

Training facilities

114. A number of national and subregional training establishments oriented towards maritime navigation have been doing useful work in the training of middle level personnel, in particular, in the area of craft operation and maintenance. This, however, is not a solution as it is in effect, a substitute to training for inland navigation. The only schools fully oriented on IWT are the Central Training Institute for Inland Water Transport in Cairo, and to a large extent , Inland Navigation School in Kinshasa, and the Centre for Professional Training in Bangui. At Kisumu, Kenya, the activities of the school were suspended in 1965.

115. It is accordingly recommended that in addition to those existing the national and sub-regional training centres be reorganised along the following lines:

CRIWT, Cairo Egypt

To offer courses in English for:

- river navigation
- vessels mechanics

- Inland Navigation School, Kisumu, Kenya to be reopened and should offer courses in English on

- Vessel's mechanics
- organization, planning and management of inland water transport.

- In Monkey Bay, Malawi, the existing Marine Staff Training Centre to cater for:

  - lake navigation
  - vessels' mechanics
  - Inland Water Port Management and Operation for English speaking countries

- In Bujumbura, Burundi, be established an inland water transport school for French speaking countries. The school to cater for:

- Lake navigation
- Vessels' mechanics
- Inland water port management and operation.

116. In general, and taking into consideration the great progress made in the construction of modern inland water vessels, the implementation of many sophisticated technical devices and changes in maintenance and operation, the existing inland navigation schools should be adapted to the modern systems while the new ones should be organised along the modern requirements.

TRAINING REQUIREMENTS

Management and Administrative staff

117. The main strategy in attempting to meet the training needs of the managerial and Administrative cadres is to update their theoretical and practical knowledge as well as professional skill in the field of inland water transport management, organization and planning.

- To achieve these broad objectives, it is recommended that courses covering three broad areas be organised either as workshops or courses lasting upto three months in the areas of:

  - Economics of Water Transport;
  - Organization and Planning of the Fleets and Ports Operations;
  - Commercial operations.

These broad areas, broken down into sub-components as outlined below, could be offered at the various sub-regional centres as already identified in the table on facilities:

1. Economics of water transport

1.1 Significance of the river transport for economic development of the country;

1.2 Technical basis of river transport (transport fleet, ports and roads, industry) and main trends of its development and modernization Transhipment for loading/unloading operations.

1.3 Utilization of basic industrial funds

1.4 Systems of payment and labour productivity of the river transport workers; methods of measurement and ways to increase it.

1.5 Cost price of transportation by inland waterways. Expenses associated with the cost price methods of calculation and ways to decrease it.

1.6 Cost price of transshipment. Expenses, referred to cost price, methods of calculation and ways to decrease it.

1.7 Definition of economic efficiency of new equipment (terms and condition for comparing alternative solutions and absolute equipment, economic indices of comparative economic evaluation of alternatives, definition of economic efficiency utilization of new equipment).

1.8 Economic advantages of mixed sailing "river-sea" ships.

1.9 Planning of water transport (structure and contents of different sections of the plan). Procedures of current planning of transport.

1.10 Financial resources of water transport enterprises (accumulation of monetary funds for the needs of an enterprise out of transportation charges and methods for their effective utilisation. Bank credit). Financial calculations (financial documents, their preparation and circulation).

1.11 Analysis of operational an financial activities of enterprise. Operational technique and methods of analysis.

2. Organization and Planning of the fleets and ports operations

2.1 Management of navigation. Actuality and ways of improving control of the transport process. Control's regulations. Functions, principles and methods of control.

2.2 Specification and classification characteristics of waterways, fleet and ports. Composition and specification of inland waterways. Major elements and their characteristics. A passport system of the technical means of river transport. Technical progress in river transport.

2.3 Principles of planning and organization of transport process. Type and composition of haulages, indices of the volume of haulages and transport operation. A concept of goods and passenger traffic and their characteristics. Technological methods of vessels' operation. Transport operations. Process of vessels' operation and indices of their utlization. Types of navigation. Methods of pushing. Characteristics and classification of cargo lines. Organization of passenger fleet. Organization of ports operation.

2.4 Notion of evaluation of transport operations and the use of cargo transfer means. Contents, composition and preparation of specifications and norms. Evaluation of the use of transport vessels. Evaluation of the time of port facilities (application of evaluation norms).

2.5 Vessel(s operations planning. Organization of planning of transport vessels. Contents of and the steps to the preparation of vessels' operational and financial plans. Monthly and voyage types of planning of vessel crews work and organization of their labour. System of indices of vessels' plans. Analysis and evaluation of vessel's plan implementation.

2.6 Planning registration and analysis of the fleet's and port's operations. Long-term and current planning of the fleet's operation. Development and analysis of implementation of the fleet's movement chart and its service at ports. Planning and analysis of port's operation. Methods of analysis of impact of the main factors on the indices of functioning of the transport process.

2.7 Effective control over fleet's movement and its service at ports. Preparation, registration and analysis of implementation of the technical plan of fleet's and port's operation. Ten day periods and shift daily planning. Structure and functions of dispatcher control over transport process and its processing at ports.

2.8 Planning and organization of cargo haulage by various types of transport.

2.9 Laboratory studies on organization of the fleet's and ports' operation with utilization of models.

3. Commercial operations

3.1 Main documents, regulating operation of river transport

3.2 Main provisions of the transport law and its application to inland water transport. Responsibilities of the carrier and cargo owners.

3.3 Function and responsibilities of commercial staff or river companies and ports.

3.4 Transport agreement. Its peculiarities for the inland water transport.

3.4 Cargoes and problems in connection with it. Physical and chemical properties and conditions of transportations of the main types of cargoes: grain, coal, ores, metal, mineral-construction, wood, package-piece, oil, oil products, perishable and dangerous cargoes.

3.7 Cargoes acceptance and transportation

3.8 Transport documents (invoice, road list, hand in list, loading-unloading statement, Bill of lading).

3.9 Order of transfer of cargoes from the port to the vessel. Preparation of vessels and holds. Plan of vessel's loading. Stowing of cargo in holds. Plan of vessel's loading. Stowing of cargo in holds. Maximum use of holds nd vessels. Determination of cargoes' mass. Finalization of documents.

3.10 Commercial operations in the course of cargo's delivery (supervision of cargo, readressing, etc.).

3.11 Commercial operations at the cargoes destination point. Order of cargo's transfer from the vessel to the port.

3.12 Order of cargoes' distribution at the store. Time periods and conditions of cargoes storage.

3.13 Peculiarities of commercial operations in cases when cargoes are transported by vessels of "river-sea" type.

3.14 Types of commercial defects. Their registration in documents.

3.15 Rules pf passengers' carriage on inland water waterways vessels. Passengers' and luggage tariffs.

3.16 Tariffs for carriage of cargoes by inland water transport. principles of their calculation. Classification. Order of application. Additional cargoes. Fines and bonuses.

Technicians

118. As the socialisation for this category of staff compare favourably with that of the maritime transport (sea-going) technicians it is recommended that additional use be made of those Maritime institutions which are already offering comparative courses. The courses, however, should be designed with the following factors taken into account.

(i) Proficiency requirements of inland water transport as contained in national regulations;

(ii) Educational and professional qualifications of the staff already in service;

(iii) Unique needs of inland water transport in contra-distinction from maritime transport.

The programmes should be basically skill upgrading for performance improvement, and majority could be organised at the centres already identified subject to availability of qualified trainers.

Trainers

119. Training of trainers is an important and crucial element in the development of training systems in inland water transport. One approach which is proposed, is to select from amongst efficient and experienced middle managers and professionals potential trainers and attachem them (thtough arrangements) to certain overseas institutions offering courses in inland water transport. So far the following institutions have a proven record of training in inland water transport.

Strassbourg - France
Pertershagen - Berlin, FRG
Schonenbeck - GDR
Wroclaw - Poland
Rostov - Leningrad USSR.

Such training could be funded through fellowships on bilateral and multilateral terms.

120. A second approach is to recruit expatriate instructors for specific tours, and attach to the expatriates counterpart local staff to work along side for eventual take over. In selecting such counterpact potential trainers, it is strongly emphasised that basic educational and proficiency requirements be closely adhered to. During this period, they should also undertake preparation of teaching materials, aids, and suitable curricula.

SEMINARS ON REGULATIONS

121. The study revealed that there was considerable slackness in observing regulations rules and other requirements laid down by the relevant authorities. It is recommended as an urgent measure that short 3-5 days seminars be organized at national levels for managers, administrators and professional staff in charge of fleets, and ports to acquaint them with these rules and regulations, their interpretation and application.

5. AIR TRANSPORT

Institutional Framework

122. Considering the enormity of Africa's size, the wide variation in topography, rough terrain, lack of well established surface transport, air transport is vital to the general inter-State links as well as intra-State transportation. However, the development and performance of air transport has been slow and has faced various problems. From the survey results it is evident that skill shortage, lack of professionalism and poor manpower policies have been part of contributing factors to this unfavourable situation.

123 The prevailing situation of overmanning and undermanning in some of the airlines arising from poor manpower policies could be overcome through adoption by airline authorities of appropriate policies relating to manpower utilisation, properly designed manpower plans, and establishment of suitable manpower infrastructures.

Manpower Planning and Utilization

124. Skill deficiency in management, marketing and finance areas is common in most of the airline organisations in the region. As a result of this there is tendency to overstaff with unqualified staff.

125. To alleviate this problem, it is recommended that airlines should organise more in-house courses to upgrade the skills, adhere to set standards for appointments and promotions and the practice of inter-airline secondment of personnel should be encouraged.

126. In addition, properly conceived career growth plans should be adopted by the airlines so that skilled and experienced staff will be available at all times. Hand in hand with the career growth plans should be flexible manpower plans.

127. Air transport industry is very sensitive. It becomes all the more important, therefore, that all personnel at management level must update their skills regularly either through in-house training or through participation in externally organised programmes. To do these in a more systematic way, requires that airlines must carry out proper manpower analysis on a regular basis with a view to determining their development programmes. As a guideline, it is recommended that the following procedure should be adopted in evolving an integrated programme on manpower development:

- through job analysis, identify knowledge, skills, attitudes and experience necessary for successful performance of each job;
- evaluate the knowledge, skills and attitudes of the incumbents;
- identify the training gap;
- prepare appropriate development programmes. These should incorporate in-house and on-the-job training aspects;
- constantly review performance

Training Activities

128. In most of the air transport organizations, training is given, on an ad hoc basis without undertaking needs analysis and without analysing the manpower mix. Training

is not accorded serious consideration. In some organisations training is not budgeted for, and there does not exist any records on whatever training has been offered.

129. It is recommended that training should be systematic, planned and relevant to identified objectives. Training should be budgeted for, and accurate records kept of all training activities.

130. Training plays a key role in performance improvement and quality of service that is eventually passed on to the clients. In recognition of this importance, training results must be taken into consideration in cases of promotions and selection for special projects.

131. In most vocational areas observed, formal education has been found to be incompatible with basic job specification. Because these personnel are already in the jobs, it is recommended that intensive in-house programmes be mounted to upgrade their educational standards which in turn should enable them benefit from training programmes.

132. In many cases training is offered without its effect on performance being monitored.

It is recommended that follow ups to training be done whether on a specific basis such as periodic evaluation, or through performance appraisal schemes. The impact of training must be evaluated on regular basis.

133. The study also showed that shortage of qualified instructors is a common problem in most of the African airlines, with in-house training facilities. To alleviate this problem, it is recommended that use be made of outstanding line personnel who, after selection; should be put through an instructors course.

Training Requirements

134. The survey revealed that most African airlines paid more attention to technical training than management and administrative courses, as well as instructors. To effect some form of balance to this situation, it is recommended that the following courses be organised as indicated:

Senior Management

To undergo executive development programmes comprising such topics as:

- corporate planning, policies and regulations
- principles of management
- marketing, and financial management;

- human resource management;
- planned maintenance
- computer applications

Middle Management

Courses should cover the following:

- human relations
- communications, decision making, problem solving
- interviewing and counselling
- planning, scheduling, controlling
- management by objectives
- performance appraisal

Administrative

Courses to cover the following topics:

- compensation planning
- management policies and procedures
- office management
- purchasing and materials management
- planning and conducting meetings
- work planning
- leadership skills
- report writing

Professionals and Technical Staff

- For pilots and aircraft technicians, training to be in addordance with AFCAC and ICAO syllabi.

- For traininers:

- basic teaching model
- the trainer and his job
- training needs identification
- curriculum development
- lecture planning
- managing the trainee

Commercial personnel

- ticketing as per AFCAC syllabus
- reservations as per AFCAC syllabus
- station handling AFCAC syllabus
- salesmenship and customor awareness
- salesmanship for sales representatives

Training Facilities

135. There exist wide variety of training facilities in the region, ranging from one classroom to ultra modern set ups. But most of these are underutilised due to lack of qualified trainers, financial resources, equipment and training aids. These are general transport training institutions and do not necessarily have air transport courses in their curricula. As a result, there is overdependence by African airlines on overseas training for their management, professional and adminstrative staff.

136. It is recommended that the scope for utilisation of regional, subregional and national transport training institutions be widened. Measures should be taken, in conjunction with AFRAA, ICAO and the institutions to introduce the required courses with local flavour. Funding arrangements should be explored, especially with respect to sub-regional institutions like ESAMI.

137. The study revealed that licencing procedures vary from one country to another with regard to African airlines. As result, the efforts of AFCAC, AFRAA and ICAO to standardise training and licencing has not completely succeeded though considerable advances have been made. It is recommended that AFCAC, AFRAA and ECA establish joint working committees to complete the standardisation process.

6. MARITIME TRANSPORT

Institutional Framework

138. Before intra-African and international trade can take major steps towards growth and expansion, the ports (with their transit significance for the landlocked countries) must become more efficient in terms of cargo throughput and ship turnround time. Despite commendable efforts by the governments of the region to develop and modernise their ports, the ports are still experiencing operational and management problems. Since several studies have shown that the ports have sufficient capacity, the reasons for poor performance may be found in poor utilization of resources. These range from un co-ordinated port operations, poor manpower policies leading to shortage of qualified and trained personnel to bad use of infrastructure. The unhappy situation may also be attributed to inappropriate organisation structures and poor co-ordination of multimodal aspects of transportation.

139. To be able to evolve more appropriate solutions to these problems it is recommended that competent and appropriate authorities review the institutional arrangements within which most of the port authorities and shipping lines in the region have to operate with a view to modifying them to meet the needs of the environment in which they are operating and to be able to fulfil the obligations for which they have been established.

Manpower Utilization

140. Skill shortage appears to be endemic in the maritime transport industry. The survey has identified difficulties in acquiring and retaining skilled and competent manpower as a major constraint in the performance of the industry. There is evidence of gross over-manning at some levels and undermanning at others. There are no correlations between stocks and key indicators.

To overcome these problems it is recommended that urgent steps be taken to evolve sound manpower policies, prepare manpower plans supported by appropriate training plans and staff development programmes. Training plans should be within policy framework, implemented and monitored by well staffed training departments.

141. Not as much attention as would be deemed necessary has been paid to the importance of basic qualifications and educational levels to fill key managerial and administrative positions. Consequently rather high percentage of staff occupy positions for which they are ill prepared. This could be attributed to the absence of schemes of service or non adherence to them where they already exist.

Because people placed in key managerial positions have to make important decisions qualifications must be given priority. It is strongly recommended that schemes of service be introduced and adhered to.

142. There is little evidence to show that any economies in manning have been realised as a result of adopting modern and technologically advanced operational methods or systems such as containerisation.

143. Manning scales should be related to technological requirements, and where applicable, attention should be paid to key performance indicators as important determinants of manning levels. Excess labour should not be carried for its own sake. In this connection, retraining and redeployment could obviate needs for redundancies.

144. The survey confirmed that whilst ports and shipping lines are engaged in modernizing efforts to cope with expected trend in traffic, there lacks matching plans for manpower development both in skilled manpower capability and utilization strategy. Modernization and improvement or expansion of infrastructure and equipment should go hand in hand with planned manpower utilization supported by staff development component.

Training Activities

145. The study confirmed that there is inadequate training, particularly, planned, systematic and relevant programmes. Where training has taken place, these have to a large extent been given little attention or secondary position in budgetary considerations or in operational priorities.

146. Training programmes should be systematically planned, geared to meet known objectives and be made part of operational or management processes. The programmes should be budgeted for and commitment of top management elicited.

As formal education level has definite continuous effect on the requirements of training programmes, such programmes should be designed with levels taken into account. This will make training relevant and appropriate to target population.

147. Apart from on-the-job training, managerial, professional and technical staff have attended seminars, short courses, conferences and study tours. These have been facilitated by the availability of fellowships from various agencies such as IMO, UNCTAD, UNDP, ILO, NORAD, SIDA, EDI, and British Council. To a large extent they have been useful and it is recommended that the trend should be continued.

148. With regard to inhouse courses, or external at national or subregional levels, where the course contents are not related to job requirements the result is that invariably there is little relevance of the programme to the job. Such courses are treated as one off event without the learning filtering back into organisations operations.

149. Training programmes should be closely related to identified needs, which process should be an ongoing one deriving from performance appraisals. Curricula should then be designed in relation to job requirements thereby providing built-in continuity and relevance.

150. There is shortage of skilled and qualified trainers who can develop courses specifically tailored to meet the unique needs of maritime transport. Although commendable efforts of UNCTAD through TRAINMAR project a core of course developers are now available in the various TRAINMAR centres, the shortage is still critical.

151. It is recomended that a pool of skilled and competent trainers be developed at each of the sub-regional maritime training institutions. Such a pool would be made available for the ports and shipping lines within the region. Such pools would function as consultancy teams and be made available to assist national institutions in course development and training of trainers.

Training Facilities

152. There is evidence of underutilisation of existing maritime training institutions. It is recommended that potential trainers be identified from the national ports and shipping lines and from local maritime transit organizations and be put through intensive instructors courses. This step would avail, at least skeleton staff to enable some of these centres commence meaningful operations.

153. There are many training institutions within the region offering various forms of maritime training at various levels. Their activities are both fragmented and un co-ordinated. It is recommended that these institutions be categorised as sub-regional level 2 and national - (level 1). Those recommended to be converted into sub-regional institutions are the following.

Sub-region	English Speaking	French Speaking
Eastern and Southern Africa	Bandari College Mombasa, Kenya	Maritime Training Institute Majunga, Madagascar
West and Central Africa	Regional Maritime Academy, Accra, Ghana	Maritime Institute Abidjan, Ivory Coast
Northern Africa	Arab Maritime Transport Academy Alexandria, Egypt	Regional Arab Institute for Ports and Shipping, Tunis Tunisia

The sub-regional maritime training institutes should offer integrated courses for senior, middle managers and nautical courses.

154. It is also recommended that sub-regional institutions and the national institutions should co-operate in the field of training and performance improvement through exchange of materials, exchange of trainers and attachments.

155. Steps should also be taken to review the terms of service of professional staff in most of the maritime training institutions. In particular competent authorities should review the terms of service for staff and institutional arrangements at the Ghana Maritime Academy, Mano River Union Maritime Institute, Ecole Nautica de Mozambique and the Nigerian Nautical College, Oron.

156. There are no staff development plans for professional staff working in these institutions. It is recommended that such plans be worked out on a long term basis and should be carefully monitored by authoritative bodies.

Training Requirements

157. Considerable work has been done by various agencies in the field of training. However, because to a large extent they have been fragmented or ad hoc, the results have not been to expectation. Few courses have been organised which cater for the needs of both shipping and port managers. Such integrated courses would be very useful as they would bring the managers involved in port operations to look at port problems from a focal point.

158. It is recommended that the following courses for shipping and port managers be organised on intergrated basis and be held at selected sub-regional maritime training institutions:-

- Container operations and planning
- Cargo operations
- Maritime safety and pollution control
- General port management
- Fleet management
- Shipping economics and accounts
- Voyage planning and scheduling
- Port pricing
- Maritime regulations and shipping law
- Multimodal aspects of transportation
- Computer applications
- Chartering
- New developments in ports and shipping

159. TRAINMAR developed courses (see Annex 6) and the IPP courses have proved very useful for the middle managers and supervisors. Whilst it is suggested that increased application be made of these courses, it is also recommended that the idea of introducing a MODEL BERTH as a means of isolating non-training problems from those that are purely training be implemented. The introduction of a model berth, to the extent that it acts as control, is also a practical way of evaluating the effectiveness of courses on job performance.

It is recommended that for the next five years, the following training be offered to the various categories of manpower to meet the identified needs:-

A. PORTS

(i) Senior Management

160. Key issues for the senior managers are how to cope with technological advancements, increased investments in equipment and infrastructure, manpower utilisation, control systems, containerisation effects, pricing of port services and legal implications of various maritime policies and legislations. The managers therefore will require courses that will enable them to deal with the above issues with competence and confidence. Courses covering the following topics, and of duration of 3-8 weeks will be necessary:

- New developments in ports and shipping
- Multimodal aspects of transport
- Maritime regulations and law
- General port management
- Container terminal operations planning and management
- Port pricing
- Pollution control and maritime safety
- Equipment maintenance
- General cargo operations
- Computer applications
- Manpower planning
- Industrial relations
- Financial appraisal and planning
- Management information systems

(ii) Middle Management

Middle managers include functional specialists in various departments but exclude (in this context) such professional specialists as accountants, economists and engineers.

Key issues in their day to day performance include need for conceptual tools and also the strengthening of their supervisory ability. They will require courses designed to improve their skill proficiency and managerial competence. They will therefore require two broad group of courses.

(a) Diploma or postgraduate courses specifically tailored to their various areas of specialisation or (in most cases), broad based diploma courses covering various aspects of port activities.

(b) Short general courses of upto five weeks including the following subjects:-

- Cargo handling
- Container terminal operations
- Management information systems
- Port pricing
- Manpower planning
- Purchasing and supplies procedures
- Port policing and security
- Health and safety
- Documentation
- Industrial relations
- Multimodal transport

(iii) Junior Management

These include supervisors, and are the personnel who should be prepared to move into middle management positions. The junior managers training strategies should be twofold:

- One based on identified career development pattern. These should be oriented to future role based on manpower plan long-term objectives.

- The short performance improvement courses.

The short courses, of upto three weeks, should include the following topics:

- Industrial relations
- Supervisory role
- Port statistics
- Budgetary control
- Planned maintenance
- Management principles
- Safety in the port

(iv) Port Accountants and Auditors (Professional)

In addition to the general management courses already recommended for middle managers, the accountants would require skill upgrading courses to cover specifically:-

- Port pricing and tariff maintenance
- Statistics
- Financial planning and cost control
- Computer applications
- Management information systems

(v) Economists, Port Planners and Statisticians

Key issues for the performance improvement for this category are; the need to have reliable data base for planning, port planning techniques, and traffic projections techniques.

In addition to middle management courses, they will require specific courses on:-

- Port economics
- Manpower planning
- Quantitative methods
- Traffic forecasting
- Environmental planning
- Computer applicatios
- Management information systems
- Port planning (TRAINMAR developed)

(vi) Harbour Pilots, Hydrographers and Marine Engineers

In addition to general management courses for those in managerial positions, skill upgrading courses specifically designed for this group would include:

- Changes in relevant international regulations
- Protection of marine environment
- Review of new technology relative to ship operation
- New maritime technology

Basically these programmes are to be designed to help these officers remain current in their specific areas of operations and in the maritime field in general.

(vii) Technicians (FTC)

Basically this category includes only those technicians who have attained the level of Ordinary National Diploma (OND), Part III of the City and Guilds or Full Technological Certificate (FTC).

They will require mainly planned maintenance courses. These would cover various areas such as:

- Civil engineering
- Mechanical, mobile and other cargo handling equipment
- Electronics
- Electrical installations, etc.

Because each port has its own unique features in terms of infrastructure, equipment and plant, these courses should as far as possible be tailor made in-house and be task oriented.

B. SHIPPING

(i) Shore Based Personnel

This category of personnel are involved in such activities as negotiation, broking, fleet management, accounting, cargo claims, chartering, etc.

Many of the courses in general management would also be very relevant to the senior and middle managers in the shipping lines.

In addition to integrated courses and the general management courses, the following specific topics would be appropriate:-

1. Senior Management

- Shipping trends and developments
- Financial arrangements
- International maritime regulations
- Scheduling and routing techniques
- Voyage planning
- Protection of shippers' interests
- Investment analysis and appraisal
- Computer applications
- Shipping economics
- Industrial relations
- Multimodal transport

2. Middle Management

- Financial management
- Voyage planning
- Shipping accounts

- Shipping economics
- Computer applications
- Systems analysis
- Conference procedures
- Chartering
- Broking
- Documentation
- Insurance
- Marketing

3. Junior Management

- Shipping accounting
- Documentation
- Stock control
- Industrial relations
- Supervisory role
- Storage
- Introduction to computers
- Customs regulations
- The port and its users

(ii) Sea-going Personnel

The training for sea-going personnel is governed by international conventions and regulations. In addition these are in accordance with national maritime regulations obtainable in each country. The states should increasingly make use of the places available in African training institutions offering courses in maritime and nautical based courses.

C. MARITIME TRANSIT SERVICES

It is considered that to have a total approach to performance improvement in the port, the maritime transit services (clearing and forwarding companies) must also be brought within the framework of proposed training strategies. The following courses are considered vital for various categories.

The senior and middle managers should benefit from general management and integrated courses.

Operations Personnel

- Basic import, export and shipping procedures
- Document preparation and processing
- Method of cargo handling and storage
- Client relations
- Customs procedures, regulations and tariffs
- International trade, insurance, law and banking

Accountants

- Specialized accounting skills
- Computer applications
- Systems analysis
- Data collection and maintenance

Long Term (beyond 5 years)

161. The longer term time frame envisages the full operation of the main recommendations on the utilisation of existing training facilities. The following activities are considered necessary to be undertaken during this phase:-

(a) Evaluation of measure of achievement on institutional adjustments as suggested under short term phase;

(b) Monitoring of the performance of built-in evaluation systems such as the performance of the model berth;

(c) Sub-regional institutions, as recommended should be operational, and in particular, nautical based courses should be offered at subregional level within the proposed framework;

(d) The proposed Association of African Maritime Training Institutes may be re-visited with the operational capability of the sub-regional training institutions having been appraised;

(e) Expansion of TRAINMAR and IPP activities should be pursued as the previous activities will have been subjected to critical evaluation.

In this phase priority should be on the development of Manpower Capability for the Training Institutions. In this instance, therefore, emphasis should be on:

- Training of trainers
- Strengthening of the sub-regional pool of instructors
- Establishment of formal mode of co-operation between the sub-regional institutions
- Development of training materials
- Strengthening and reactivating the role of the Port Management Associations in training activities by canvassing for fellowships and commissioning specific studies on performance improvement in specific areas;
- Organizing a seminar or symposium for trainers to review the performance vis-a-vis short term and intermediate term activites.

General

182. If the performance of the ports is to be improved, every effort should be made to bring into common perspective activities in manpower and training, the other groups involved including cargo handling companies, customs, and maritime transit services organisations.

183. The existence of Port Management Associations is a healthy development. The role that they can play in performance improvement is significant, and with recommendation on sub-regionalisation of the various maritime training institutions their roles will even be greater. It is therefore recommended that their training committees should be strengthened and should involve themselves more in training activities. It is further recommended that the PMAESA be assisted to commence operations at the proposed secretariat at Mombasa, Kenya, whatever the status of such a secretariat.

III. ROADS AND ROAD TRANSPORT

GENERAL SITUATION

164. Road transport plays a more dominant role in Africa than in other continents. This is because of its massive size, implying that if the objective of physical integration of the region is to be realized, then adequate transport with an exceptionally high population of inland transport, in which the road must play a dominant role has to be provided.

165. This situation has resulted in a relatively greater demand for roads as the only mode with flexibility, capability and reach to influence the majority of people. Thus, Africa's road transport situation is one of having to meet exceptionally large needs and difficult conditions with extremely limited resources.

166. Although the stage of road development does vary from country to country, on the average, the road densities are comparatively low, road surface conditions are poor and road needs, in terms of expanding and upgrading the network are vast.

Table 3.1: Sample indicators of road densities in Africa

Country	ARCA km^2	1984 Population (million)	GNP per Capita	Road Network Total	Paved	% Paved	Km/km^2	Km pe 1000 pe
Ghana	238,540	12.2	360	28,294	5,782	20.4%	0.12	2.32
Kenya	582,646	19.54	390	53,789	6,409	11.9%	0.092	2.75
Mauritius	2,040	1.03	920	1,800	1,750	97%	0.88	1.75
Nigeria	923,773	95.0	860	113,100	24,900	22%	0.12	1.19
Sierra Leone	71,740	3.70	390	7,090	1,222	17.2%	0.098	1.92
Swaziland	17,364	0.66	950	2,719	520	19.1%	0.16	4.22
Zambia	752,614	6.44	610	36,636	5,583	15.2%	0.048	5.69

167. Roads and road transport development, face many challenges in Africa. There is first of all the challenge in many countries of inadequate size and extent of the network system. There is need to increase the road density, particularly the feeder roads. Regional and international routes are not well developed and there is need to upgrade and rationalize these in order to facilitate intra-African trade. There is also the need to rehabilitate the existing network which has suffered considerable deterioration.

168. The deterioration has come about largely because of inadequate maintenance occasioned by inadequate funding, poor or inappropirate maintenance organizational mechanisms, poor management and shortage of maintenance equipment and resources. This situation has been compounded, by shortage of skilled maintenance staff.

169. Fortunately, most governments in the region are taking steps to rectify the situation, and thus, there is some hope. On maintenance, many governments now recognize that there are heavy returns to be gained from adequate maintenance and that it is not cost-effective to build new roads at the expense of existing ones. Consequently, many countries have given priority to maintenance and rehabilitation of existing roads. The maintenance organizations are being revamped and staff given some training.

170. On regional and international routes non-physical and administrative barriers are being minimised. Greater attention, therefore, must be directed at improving the capability of the staff, both at managerial, professional and technical levels.

171. Road transport operations, on the other hand, would appear to be better organised and orderly. The operations are basically controlled by a government ministry in charge of transport, and may be categorised into private transport, public passenger transport, trucking industry and government transport. Private transport tends to concentrate in major urban centres which account for 80-90 per cent of the total fleet. In general vehicle ownership ratios are still fairly low except for Swaziland and Mauritius (1:11 and 1:20 respectively).

172. Passenger transport is provided mainly by privately owned bus companies. A common feature of urban passenger services in most urban centres is the inadequacy of available capacity, poor quality of service and the general congestion. Rural and inter-city services are largely provided by buses owned by private enterpreneurs. In certain cases governments own and operate large fleets of cars, buses and trucks. The degree of government participation varies from country to country, but the management is often assigned to a department. From the study, it was observed that many of these departments seem to have inadequate and inappropriate organisation structures, and are facing considerable management problems leading to inefficient fleet utilization.

173. In conclusion, it can be said that although the necessary regular and adequate road maintenance is generally recognized, the highway departments responsible for maintenance are not, in many cases, sufficiently equipped with trained personnel and with equipment to adequately maintain their national highways. In some cases, even when they have the trained personnel, the deficiency within internal organization makes it difficult for them to perform not only the daily routine maintenance but also the periodical maintenance and rehabilitation work required.

174. It is therefore recommended that action be taken to organize, reinforce and plan the Maintenance Department for the regular maintenance of the national and international highways.

Institutional Framework

175. In African countries, as elsewhere, the responsibility for providing road transport infrastructure lies with the government. Within the government, this responsibility is assigned to a specific ministry which combines the roads portfolio with other functions.

176. A prerequisite for an effective roads department is an appropriate organisational structure that is adequately staffed to carry out the functions entailed in capital development and maintenance. These functions include planning, survey, design, materials management, research, construction, maintenance and administration. These functions are grouped into operational divisions, road planning, the survey and design, materials research laboratory, construction, maintenance and administration divisions.

177. The survey revealed that in most of the roads departments, the planning portfolio is not well developed. They do not even have a planning office. The only exceptions are Kenya and Nigeria. The result of poor development of the planning portfolio is that in many cases investment projects are inadequately appraised.

178. The construction division of any roads department should be organised and equipped such that it can undertake own road construction activities. The major problem is that such administration has to operate within the civil service institutional arrangement: procurement of spares and construction materials has often to be sanctioned by headquarters which is cumbersome and slow; civil service working hours which are inappropriate; and there is no incentive the best performers. The result is that expensive construction equipment is underutilised. Quality of work is generally low. As a result bulk constructions are carried out by contract. The Administration Division, which would normally include personnel sections and training suffers from poor structuring. It is poorly planned and the structure does not lend itself to proper execution of functions.

179. The road transport fleets revolve around individual road transport companies. In cases of private ownership, structures are geared towards profit making or breaking even while those owned by the governments operate more on social welfare basis than profit maximising ventures. In most cases, there exists little attempt at formalizing the institutional framework within which these organisations operate. Thus rarely would there be manpower development and utilisation policies or even schemes of service. Majority have personnel departments which deal with matters relating to pay, welfare benefits and industrial relations.

180. In general, the administration and management of road transport may fall under the jurisdiction of two or more government ministries. However, these arrangements are not static as now and again various reorganisations have been effected.

181. The following have been identified as shortcomings in the organizational arrangements for road transportation:

(i) There is a tendency invariably to put greater emphasis on administration rather than on management of road systems. African countries should make concerted efforts to professionalize their ministries of transport by employing more transport specialists (transport planners, transport economists, transport engineers, traffic engineers) than civil engineers.

(ii) The existing machinery in many countrties for policy making, planning and co-ordination of transport is generally ineffective:

- There is simply no effective co-ordination among the various modes;

- With a few exceptions, these countries cannot boast as yet of having clear, co-ordinated and comprehensive national transport policies, giving specific and strategic guidelines to transport development.

Manpower Situation

182. Manpower positions can be viewed at two major levels. The professional and the semi-professionals together with middle management. The bulk of engineers are normally recruited from local universities and put through phased training covering periods of upto three years, leading to registration by the respective boards. During such training, the graduate would cover all the six divisions, thus obtaining a broad view of the range of activities involved.

183. An unfortunate feature which was observed is that promotion seems to be more heavily based on length of service rather than training. Posting and duty allocation after training bear little or no relevance to training received. It is paradoxical, therefore, that in a situation of acute manpower shortage, some highly trained professionals may not be given the opportunity to practice and develop their skills. There is also over-dependence on consultants to undertake detailed project feasibility, design and contract supervision. This tends to rob local engineers of the opportuntiy for hard practice.

184. Up till now maintenance in most countries has been equipment intensive, and while maintenance divisions employ many thousands of people, many are grossly overstaffed at the labourer and semi-skilled level. The division faces severe problems of insufficient funding, poor availability of plant and equipment, and shortage of professional staff. There is acute shortage in vitually all countries of the region of planning engineers and transport economists.

185. Survey and design office should be staffed by experienced civil engineers and surveyors at professional level. They should be able to formulate optimal design solutions. Yet in virtually all countries of the region, these are in short supply. Experienced engineers tend to either go into private practice or join the private sector where pay conditions are generally attractive. The result is that many design offices do not have in-house capability for carrying out design except for minor projects and low class roads.

186. The bulk of design projects are thus commissioned to consultants. This is an expensive alternative which leads to a vicious circle where the indigeneous engineers do not get the opportunity to acquire the relevant experience in design.

187. The road transport industry presents a rather different scenario. 95 per cent of the staff are mainly operatives. The supervisory, middle and senior management, and the professional staff make up the remaining 5 per cent. They are normally recruited from the local universities or polytechnics.

188. Most ministries do not undertake any manpower planning and neither are there formal staff performance appraisal schemes. There is no reliable data on manpower situation thus it is not an easy task to attempt quantifying the shortage in terms of numbers. However, a rather large number of expatriates are employed to alleviate this shortage.

Training Activities

189. Post graduation training for engineers seems uniform in most countries concerned in the survey. They normally enter service as trainee engineers and undergo a two to three year internship interspersed with practical attachments in the various sections of roads department. During periods of attachment trainees work under experienced engineers. On completion of this phased training, they would be interviewed for registration.

190. There are considerable merits in this approach to training in particular as it avails the trainee opportunity to practice the theories under guidance. However, this approach has one main limitation in that in many countries there may not be enough experienced engineers to guide the trainees. Nor are there specific set of activities that the trainee is supposed to go through, completing each module before proceeding to the next.

191. Training after registration is in the form of either long post graduate courses or short 1-3 months seminars and courses. By and large this type of training takes place overseas, funded by fellowships from bilateral and multilateral sources. As most countries, due to foreign exchange limitations, are unable to fund overseas training, the number of graduates attending such courses are therefore limited to the fellowshops available and not to the training needs. At times the courses themselves may not be well tailored to the skill development or performance improvement needs of the trainees.

192. Sub professional staff, making the bulk of middle management and administrative staff perform very essential support functions in a typical roads department. As a general approach, this cadre of staff would undergo a minimum of 12 years basic education followed by one to three years vocational or technical training in the polytechnics or vocational institutes. In a number of countries formal theoretical training is sandwiched with practical on the job training using in-house staff training facilities. Curricula and syllabi for the various courses are normally set by the local (national) examinations Councils. Entry into career would then follow a laid down scheme of service.

193. Unlike the case of professionls who can get further training abroad, there are virtually no training institutuions or training opportunities for the sub-professionals who are already in service.

194. As for the middle and senior managers in the road transport industry, there are virtually no specialised institutes catering specifically for their needs at national levels.

195. Once recruited, therefore, training is mainly on the job. At subregional level ESAMI offers a variety of general management courses relevant to road transport. These include courses on Road Transport Fleet Operations, and Maintenance and Management, which are designed specifically for executives in the road transport industry.

196. Because the proportion of staff in the middle and top management in road transport firms make up only 5 per cent, the total number of staff in this category in any one country is small, and cannot justify the establishment of a specialised training institute. Training, is therefore, best accomplished at subregional level.

Training Institutions

197. The most unique feature of training in road and road transport industry is the absence almost everywhere in Africa of institutions solely devoted to management, professional

and adminsitrative courses in road and road transport. The only exception is Tanzania which has a well developed National Institute of Transport located in Dar-es-Salaam, although it still faces considerable operational problems at the policy making levels. Training that takes place, therefore, are mainly those that are offered at other institutions. These range from professional courses offered at local universities, through externally subscribed general management courses to technician courses offered at the polytechnics or vocational training centres. Limited training also takes place within the ministries or road transport organisations.

198. The description and analysis of the training institutions currently utilised by the industrry has therefore been approached under four broad groups; in-house training institutions, national institutions, regional and overseas institutions.

In-house Training Institutions

199. These are training institutions that are owned and managed by ministries and road transport enterprises. In-house training institutions are very useful vehicle for meeting training needs where the organisation employs a large number of people to carry out routine tasks and where there are many new entrants joining the organisations each year and who require induction and skill improvement training. This situation obtains in respect of ministries responsible for road infrastructure development and maintenance. These institutions differ greatly in size and the ranges of courses offered as one moves from one country to another.

200. The training programmes offered in these institutions vary widely ranging from a few weeks in-service training for maintenance inspectors to several years skill development programmes for technicians. For these institutions to carry out training effectively, they require adequate physical facilities, adequate supply of training materials, teaching aids and equipment and skilled trainers. The condition of many of existing institutions lacked the basic requirements. Many are housed in dilapidated facilities, and are in no position to offer the required training. They lack trainers and curricula.

National Institutes

201. Under this category are included local universities, polytechnics, vocational training centres which are established with a view to meeting manpower requirements at national level.

202. Vocational training institutions in most cases, provide training in various vocations and they offer a wide range of programmes in technicians category. Some of these are relevant to personnel working in road and road transport industry.

203. Polytechnics are higher level technical training institutions offering training upto Higher National Diploma level. In addition to offering technical courses in such areas as engineering (civil, mechanical, electrical and automobile), they also offer courses in accountancy and business administration. Demand for places in national polytechnics outstrip supply and competition is stiff.

National Institutes of Public Administration/Management

204. Most of the countries covered by this study have at least one institute of public administration management. The role of these institutes is to organise courses for senior

and middle level civil servants in public administration and management. They offer long courses in Accountancy and Administration, leading to recognised professional qualifications. These institutions, however, are not technically oriented, and do play a relatively peripheral role in terms of training requirements of technical staff in the road and road transport industry.

205. A common feature of these institutes is their inability to attract and retain highly qualified and experienced staff necessary to organise and manage the high level training programmes which the institutes aspire to run. This is because these institutes are administered under the civil service set up, with rigid and unattractive terms and conditions of service.

Universities

206. Universities are the major source for the senior professional and administrative staff in road and road transport industry. Almost all African countries have at least one national university catering for high level manpower. However, these universities provide limited places and provide few post-graduate specialisations in the technical and professional faculties such as transport studies. Again the demand far outstrips supply for university graduates.

Regional Institutions

207. The only regional institute relevant to the training needs for staff in road and road transport is the Eastern and Southern African Management Institute (ESAMI) located in Arusha, Tanzania. It conducts high level transport seminars.... covering transportation projects management, transport economics and general transport management for transport planners, engineers, economists and senior managers.

208. Training in transport and communications has from the beginning been an important component of training portfolio for ESAMI. In keeping with this tradition and in order to satisfy increasing training needs in transport, plans are under way to expand the existing transport and communications division into a semi-atonomous centre for African transport management studies.

209. The institute currently has a total 41 "consultants" (teaching staff) all of whom are appropriately qualified African nationals. In addition to the teaching staff there is a director, his deputy and six senior administrative staff who are responsible for the day to day management of the Institute. The staff is administratively organised into six operating divisions:- Transport and Communications Management; Human Resources Management; Project Planning and Implementation; Marketing and Export Promotion Management; Management Science; Financial Management and Health Sciences Management. Each division is responsible for organising and delivering courses in its specific area of competence, but drawing whenever necessary on specialist staff from other divisions.

210. ESAMI currently runs an average of about 70 courses per annum attended by some 1200 - 1300 participants. Around 50 of these are run in Arusha where participants are accommodated and the rest in various locations elsewhere. The courses offered reflect a very broad range of mamagement fields. All courses offered are designed to benefit middle and senior level managers and technical and administrative staff in the private and public sector. The courses are short, ranging from two to ten weeks but averaging

four weeks. Many of the courses offered including all those offered by the Transport and Communications Management Division would be of benefit and relevance to those working in the transport sector. Table below lists a selection of course offerings by ESAMI which are relevant to middle and senior level staff working in the road and road transport industry.

Table 3.2: Selected Course Offerings by ESAMI Relevant to Middle and Senior Level Staff in Road and Road Transport Industry

Project Planning and Management Division

1. Construction Projects Management
2. Construction Arbitration
3. Project Implementation Course

Transport and Communications Management Division

1. Physical Distribution Management
2. Rural Transport: Planning and Operations
3. Road Maintenance Planning and Management
4. Transport Investment Planning
5. Operations, Maintenance and Management of Road Transport Fleets
6. Management of Road Safety Programmes
7. Senior Level Roundtable on Transport Policy
8. Information Systems for Planning and Management in Transport
9. Trade Facilitation and Documentation Improvement
10. International Procurement and Contract Negotiations

Human Resources Management Division

1. Human Resources Management and Development
2. Advanced General Management
3. Training of Management Trainers Course
4. Workshop on Industrial Relations
5. Manpower Planning Course

Management Science Division

1. Stock Control and Ware-house Management Techniques
2. Purchasing and Supplies Management
3. Management Analysis and Operations Research
4. Inventory Forecasting Techniques

Financial Management Division

1. Financial Management
2. Accounting and Finance for Non-Finance Managers
3. Financial Planning and Control
4. Seminar in Investment Management

Marketing and Export Promotion Management Division

Marketing of Transport and Travel Services

211. Whilst training is by far the most important function of ESAMI in terms of staff-time allocation and revenue the institute does also undertake consultancy assignment under commission by both public sector industry and business. Consultancy assignements completed today by ESAMI have covered a wide range of fields reflecting the wealth of professional talents, skill and experience of ESAMI staff. A third but much less pronounced function is research. Research carried out has tended to revolve around teaching material development.

212. Training in transport and communications has from the very beginning been an important component of training portfolio for ESAMI and its predecessors. In keeping with this tradition and in order to satisfy expanding training needs in transport, plans are underway to expand the present Transport and Communications Division of ESAMI into a semi-autonomous Centre for African Transport Management Studies. The Centre, when established, will be the only one of its kind in Africa and will be able to offer a much expanded portfolio of training programmes in all modes of transport, and be able to cover sufficiently, aspects related to the following:-

- Infrastructural aspects: This would deal with such subjects as investment planning, financing, construction management maintenance, etc.

- Operational aspects: This will revolve on how to enhance performance improvement of specific transport enterprises such as bus and trucking organisations.

- Policy issues: This will be directed at senior administrators and policy makers and will aim at improving the policy environment for the transport sector.

213. ESAMI as a sub-regional training institute plays a significant role in performance improvement and is comparatively well disposed to meet the increasing demands. Firstly because it offers only courses which would be inappropriate to mount at national level because of insufficient demand, and for which staff would have to be trained abroad, it offers reduced training costs, thereby making it possible to extend training to a larger number of people. Secondly, by bringing managers from different countries in a sub-region, creates an excellent forum for discussing and reviewing managerial problems and evaluating different approaches to their solution, and in this way is able to keep managers abreast of developments in their particular sector. Thirdly, its training programmes are well adopted to a wide spectrum of local conditions, and lastly, it is able to offer consultancy services to clients in government and industry.

Overseas Institutions

214. Overseas universities and other institutions of higher learning have played and continue to play an important role in satisfying Africa's training needs for high level skilled manpower.

215. At post graduate level overseas universities offer invaluable opportunities for graduates pursuing specialized courses in areas such as transport economies, or transport management which may not be available locally. A good proportion of those who benefit from these courses do so under scholarships made available under bilateral arrangements.

216. It is quite apparent that Africa will continue to depend on overseas institutions for some time to come. However, dependence on overseas universities and institutions of higher learning is not a panacea for solving Africa's high level manpower needs for a number of reasons:-

(i) Expense: Considerable financial expenses are involved in pursuing university level studies overseas. Tuition and accommodation fees have to be met in foreign exchange, which many aspirants and/or their governments can ill-afford. It would be much more cost-effective to receive education at national university.

(ii) Numbers: Because of the costs involved only a limited number (limited to those who can afford) and the few who receive scholarships can attend overseas institutions. If funds were made available to expand facilities at national universities, larger numbers could be trained.

(iii) Curriculum: Training curricula and programmes at overseas universities are not always attuned to local conditions while some of the techniques taught may not be applicable at home.

(iv) Environment and language barrier: Studying overseas creates a foreign environment to an African which takes considerable time to adapt to. In many cases the language places yet another barrier.

217. The solution to this dependent relationship is to rapidly increase intake capacity at national universities at both undergraduate and graduate levels, to strengthen existing regional institutions of ESAMI type and to establish a new one covering West African countries. To do this requires time and money; time to train the large number of university teachers needed to cater for increased intake in national universities and to establish specialised post-graduate schools, money to expand physical facilities, to buy equipment and teaching aids, and to meet increased recurrent expenditure.

Training Requirements

218. About 50 per cent of the road transport fleets is in the hands of owner-operators. Many of these rely entirely on their acumen to stay in business. In many countries there are very few if any training programmes for such entreprenurs and there is little opportunity for them to receive any training.

219. Whilst a large majority of these entrepreneurs are able to breakeven, their performance would be improved even further if short training programmes in specific areas of road fleet operations and management are periodically organised at national level under the auspices of the Ministry of Transport.

220. Many of the larger road transport enterprises, both state and private owned are facing serious managerial problems. Training of the top and middle level management in specific areas of road transport management is one of the inputs urgently required to steer them back into high productivity.

The following groups of road transport personnel can be identified:

- those needed in the ministries of transport, works and planning;
- those in public passenger and goods transport companies;
- those in road maintenance specialization.

221. In general, the training of engineers (civil, electrical and mechanical) is the exclusive domain of the existing engineering faculties of African universities. In road maintenance, the critical factor is the lack of technicians.

222. In the Transport and Public Works Ministries and public transport companies, adequate training is required for transport planners, transport engineers, traffic managers, transport economists, mechanics, drivers and traffic operating personnel.

223. It is recommended that:

(i) For the training of transport economists, transport planners, public and goods transport personnel and some senior administrators (in various ministries of transport and works) the establishment of transport institutes is called for. At the moment, skills are lacking and emphasis should be put on upgrading of skills of the existing staff.

(ii) As an interim measure and to augment other training measures, it is recommended that a special fund be created to finance a technical advisory service programme within the Decade programme. This would not be a permanent feature but would be placed on on-the-job training and demonstration projects;

(iii) For the training of professional engineers, it is recommended that various governments continue to sponsor trainees in the existing universities.

224. Finally, it is recommended that appropriate in house or tailor made courses covering the following topics be organised for the managerial, and technical staff.

Roads

- Construction projects management
- Construction arbitration
- Project implementation
- Road maintenance planning and management
- Transport investment planning
- Management of road safety programmes
- International procurement and contract negotiations
- Information systems for planning and management in transport

Road Transport

- Physical distribution management
- Rural transport planning and operations
- Transport investment planning
- Operations maintenance and management of road transport fleets
- Management of road safety programmes
- Marketing of transport and travel services.

For both Roads and Road Transport

- Senior level roundtable on transport policy
- Trade facilitation and documentation improvement
- Human resources management and development
- Advanced general management
- Industrial relations
- Manpower planning
- Stock control and warehouse management techniques
- Purchasing and supplies management
- Inventory forecasting techniques
- Financial management
- Accounting and finance for non-finance managers
- Financial planning and control
- Investment management

(All the courses enumerated above are regularly run at ESAMI).

IV. RAILWAYS AND RAIL TRANSPORT

GENERAL SITUATION

225. In Africa today, the railways continue to be one of the most important means of overland transport. They account for 10-60% of all inland freight movements and upto 50% of passenger movements. Despite the rise of other transport technologies, railways are still the most efficient mode for handling dense movements of people and freight and are critical for the industries and exports of many developing countries.

226. Current economic and technological developments, notably the increase in energy prices, are opening new opportunities for railway services and increasing the importance of improving railway performance generally, and in particular their response to evolving market conditions.

227. To play this role, therefore, will depend, to a large extent, on decision-making capability available within the railway organisations, that is, on the competence in marketing, costing, and operations management and close co-operation between the three groups.

228. There is no other way of ensuring the existence of sound decision making capability in an organisation other than by ensuring sound organisational policies and appropriate structure and manning. Yet today most railways organisations, due to their institutional evolution, still operate like "slow moving public administration". They require extensive structural review, which has been fairly slow.

229. In most cases these necessary changes have been slow due partly to the lack of policy alignment between the supervising authorities at national level and the railway functions at organisation level, and to the possible assumption that investment in the infrastructure and rolling stock alone can resolve the issues. In practice what are of utmost importance are; review of policies, organisational set up and facility utilization, to reflect changed circumstances and environment.

230. In many countries of the region, railways have remained a constant drain on government financial resources, failing to offer the expected support in development activities. While this situation continues to obtain in the railways organisations, the old monopoly of "general carriers" is fast being eroded by the technological and infrastructural development of other modes. The railways now face considerable challenge from the pipelines, air services and road transport, particularly for long hauls. The railways no longer enjoy the government protective tariffs which existed before.

231. A comparative advantage for the railways in carriage of a particular traffic means, however, that it must be able to offer conditions of service and price which can attract and hold traffic and not lose money. A lot will therefore depend on the manpower capability of those entrusted with operating and managing these vital organisations.

232. During the first phase of the Decade a number of measures were envisaged having regard to the need to improve the performance of the railways:

- improvement of the management and administration of the networks
- modernisation and maintenance of infrastructure and equipment

- training the management and technical staff necessary for proper functioning of the networks

- the development of an African railway industry

Improving Management

233. The reorganisation of rail services is necessary because the railways generally, have suffered substantial losses in short-distance traffic because of competition from road transport. The railways must therefore concentrate on long-distance transport, for which they have many advantages over other modes of transport in terms of costs, whenever the volumes to be carried are large enough. To rationalise the services therefore, priority must be given to improving the management of the networks.

234. Maintenance programmes must be established in the light of traffic needs. They must include provision for regular supplies of the necessary spare parts. Such programmes are not easy to work out, because lack of maintenance in the past has resulted in premature wear and tear. Modernization must be carried out at the same time as a reform of maintenance services is made and training for qualified technicians in the various branches is given. Planners and suppliers are essential ancillaries in good maintenance.

It is recommended that concurrent with the modernization through purchase of equipment, should be planned the training of staff to use it. This obviates the danger of projects being carried out without due preparations and enables time limits to be met.

INSTITUTIONAL FRAMEWORK

235. All the railways in Africa are owned by respective governments, through appropriate ministries. They have the responsibility of formulating railway transport policies, and for establishing adequate machinery for policy implementation. This includes appointment of Boards and top management. At national level, it is recommended that a central manpower control unit be established with manpower development functions for various modes including the railways.

236. Sound organisational policies can only be expected where the structure and manning are appropriate. The Boards and top management are expected to pay special attention to structure and policies insofar as they affect, financial, operational and staffing needs of the organisations. Policies pertaining to recruitment, rewards and training are crucial to the development of manpower capability. The operation of these should be the responsibility of a Human Resource Development Unit, which should be established in each of the Railways.

237. In certain situations, the study showed that some of the organisational problems bred inefficiency. Situations where top management is hemmed on all sides by rigid government control, make it difficult for any variation in approach to day to day organisational activities as occasion may demand. There is need for some built in flexibility to allow top management some elbow room for decision making.

238. While it is accepted that governments must have control of organisations within the public sector, such control could be exercised in the form of broad policy guidelines. It should also be recognized that since the chief executives of these organisations hold office which carry institutionalised trust, this trust ought to be reflected in how far they are free to innovate and create to steer the organisations into stronger market positions.

239. The survey also revealed that too frequent changes in top management positions has not helped to build the core of experienced and qualified managers. Railways are, by their nature, large and complex organisations. They contain a multiplicity of professionals and technical staff at various levels. Thus they are some of the most difficult enterprises to manage. The top management therefore require enough time to learn the industry with its culture and challenges. Changes at the top should, as far as possible be minimised.

240. In cases of joint ownership of the railways, it was found that excessive political interference could be a source of inefficiency. The partners in the venture should allow the technocrats a relatively freer hand in managing the organisations. Excessive staffing the organisations with political appointees ought to be avoided. What is necessary is formulation of policies to ensure that the organisation remains independent of direct influence of any of the partner states and that the organisation must on its own justify its existence. In joint ownership, terms of service should be uniform for all staff.

241. Where appointing authorities decide to make appointments based on considerations other than those set out in the scheme of service, standards have not been adhered to with regard to qualifications and relevant experience. It is important that to enable the organisations improve on their performance efforts be made to put emphasis on qualifications.

242. Proper manpower policies necessarily require the existence of job descriptions which provide performance standards, uptodate manpower inventory, staff development plans, proper schemes of service, performance appraisal schemes, all backed up with sound training policy and programmes. These were found to be wanting and urgent steps will have to be taken to evolve institutional framework which will facilitate proper manpower utilization.

MANPOWER SITUATION

243. Comparative analysis of manpower establishment and stocks and manpower flows has not been found possible in view of the scanty reliable statistical information kept by various railways organisations.

One of the major findings of the study is the overstaffing in the lower levels as a common feature of African railways (See Tables 4:1 and 4:2).

Table 4:1 COMPARATIVE OPERATING STATISTICS 1984

	Route Km	No. of Locomotives	Freight - Net Tonne/Km '000
Kenya Railways	2651	209	2032
National Railways of Zimbabwe (NRZ)	3394	444	6289
Zambia Railways	1277	80	515

Table 4:2 COMPARATIVE STAFFING LEVELS 1985

	Senior & Middle Level Managers		Administrators, Senior Professionals, Technicians		Artisans, Clerks and Other skilled	
Kenya Railways	Nos.	%	Nos.	%	Nos.	%
	244	1.0	1103	4.5	7122	32.0
NRZ	285	1.6	785	4.4	8953	50.4
Zambia Railways	255	3.0	613	7.4	3213	38.5

244. The overstaffing is mainly to be found in the lower staff cadres. These are generally the clerical and artisan level and the semi-skilled and unskilled categories. At the same time there exists shortages at the middle management and professional levels. In particular engineers, planning officers, accountants, personnel specialists, as well as purchasing and supplies specialists.

245. Common to all the railways organisations studied is the absence of a formal system of assessing manpower requirements in relation to key indicators such as traffic volumes. The only exceptions are Ivory Coast and Cameroon. Instead staff establishment for a functional unit depends on personal assessment of the respective functional head. The normal techniques of work measurements and work study are never employed.

Senior Management

246. This job group consists of different mix in different railways organisations. In a number of railways studied, the group has many long serving employees. In the engineering department, for instance, they are mostly graduates or Higher National Diploma holders. In most countries they are required to be registered. Apart from the Southern African countries, where there are large compliment of expatriate staff, in others they are basically local. Several posts in this cadre are unfilled due to lack of qualified personnel. However, wastage is minimal as most of the staff are working towards their pensions. In a few of the railways there exist political appointees who on the whole, tend to lack the required qualifications and managerial experience vital for positions held.

Middle Management

247. In this group are some of the oldest as well the younger graduates. In Traffic, Supplies and Personnel departments, majority are long serving employees whose ages range from 45-55. In the Engineering Department, on the other hand, most of them are young graduates with between 2-10 years service.

248. Young professionals in this group tend to be unstable as they tend to aspire to better job opportunities elsewhere. Railways which once were good employers have now been outcompeted by transnationals in terms of better pay and perks. The railways remuneration and promotion policies have remained rigid lacking flexibility to compete in the labour market. High turnover is therefore common feature for this group and vacancies remaining unfilled for prolonged periods are more or less a permanent feature.

249. To correct this situation it is vital that the railways authorities establish position of Manpower Development Officers to be filled by qualified and competent persons. One of their tasks would be to evolve proper staff development programmes. With increasing unemployment problems facing non-professional graduates in most of the countries, there may not exist in the near feature, an urge to leave. Railways could therefore capitalise on this opportunity to recruit young economists and statisticians who, after quick familiarisation with railways systems, can be placed on substantive posts.

250. With regard to southern African countries the railways may still find it difficult to fill the professional positions as the total annual output of the universities in these fields is still very low, compared to demand. One approach is for the organizations to sponsor students for professional courses.

Semi-Professionals and Technicians

251. This group which is sometimes referred to as Junior Management, forms by far the largest group of management in most railways in Africa. They are an important link between management group above and the operatives below. In non-technical vocations such as traffic, personnel etc. They are long serving staff on whom the young professionals rely for guided experience. When well motivated, they are an asset to the organisation.

252. There is considerable variation in age amongst the technicians in this group. Mostly, they head such sections as foundry, carriage and waggon repair, and permanent way inspectorate. Staff turnover in this category is varied. It is high in the technical departments, in those skills which are not railway specific and low in non-technical departments and in those technical areas where the skills are railway specific.

253. The study pointed out that morale amongst lower technicians tended to depend a lot on the technical knowledge and supervising ability of the semi-professionals in their work place. Arrangements by the different railways to provide requisite supervisory skills to this category of staff is satisfactory for staff in the technical departments but extremely poor in the Supplies, Personnel and Accounts departments.

254. These departments are important resource control centres and as such it is strongly recommended that all railways within the region take urgent steps to improve supervisory skills of staff in those categories as well.

Critical Skill Deficiencies

255. The study brought out certain critical deficiencies in manning which arose either as a result of omission from establishments of certain vital positions or inadequate structures which do not provide for these functions. In some cases there is straight shortages in numbers.

The functions listed below have been given little or no attention:

- Manpower Planning and Training
- Planning
- Marketing and Commercial Activities
- Management Information Systems
- Work Study and O & M
- Cost Accounting
- Stores Control

These functions are normally concerned with strategic management than the more operational line functions. In some railways, titles such as that of Manpower Planning Officer exist but the functions are never carried out.

256. A Manpower Planning Unit would be expected to undertake manpower surveys, prepare inventory of existing staff, job positions, prepare job descriptions, identify, on a continual basis, skill deficiencies, make projections of future requirements, identify recruitment sources and prepare a phased approach to recruitment and staff development. It would undertake, on regular basis, identification of individual staff training needs. Information from all these manpower-centred activities will facilitate and ensure proper manpower planning and utilisation.

When properly executed manpower planning may assist in establishment control and in review of recruitment and recommendation of policies.

257. The main drawback is that experts in the field of manpower planning are very scarce. Local universities do not offer this specialist training. However individual organization should be able to train these specialists. Within the region, ESAMI designs and conducts courses on human resource management.

Planning

258. There is large amount of planning involved in railways operations. For successful planning there is need for reliable traffic forecasting, project appraisals and good data base for reliable statistics. This is an area which has been neglected. Whilst it is possible to recruit an economist, he will require further development by the organisation itself.

It is therefore imperative that railways in the region give serious consideration to the establishment of a viable planning unit, adequately staffed with well qualified personnel.

Marketing and Commercial Function

259. The survey showed that all the railways organisation in the region had institutionalised the commercial function which incorporates marketing. In some of these organisations the function is staffed by elderly persons who have climbed up the ladder over the years. They have hardly been trained in marketing concepts and are unlikely to be equipped with the modern tools. In the face of considerable challenges the railways have to meet from other modes of transport, marketing unit must be innovative and aggressive. It must involve a number of planned activities.

260. There is need, therefore, for the railways to recruit qualified personnel to carry out the functions of marketing. Such a person would probably be a graduate of Commerce or Business Administration with thorough training in railways operations and services.

Stores and Supplies Function

261. Like the accounting function all railways surveyed had established Stores and Supplies Units but the general skill deficiency is widespread. The railways hold large stocks and stores worth millions of dollars yet the management of these units is left in the hands of lowly qualified staff.

262. The skills and knowledge have been attained through long service on the job. The institutional training received in the railways own organisations have been very basic and mainly concerned with maintenance of stores ledgers and purchasing procedures. The state of stores ledgers are in a sorry state. The problem is one of managerial incompetence.

263. The type of training that is required in the existing personnel should go beyond skill training and should include inculcation of the right attitudes. As an immediate measure, the railways authorities should recruit and train qualified staff in stores and purchasing. Existing staff should be retrained, where possible.

264. Existing management training institutions do conduct courses in purchasing and stores. These should augment existing in-house training programmes. Staff who have acquired professional qualifications should be appropriately rewarded.

Accounting

265. More than ever before, railways require more expertise in finance and auditing. They are responsible for large capital outlay and continued investments. Proper financial planning and control is mandatory. Currently the railways in the region are very weak in these areas.

266. While the railways could correct the situation by immediate recruitment of qualified accountants, retention will be difficult if the terms of service remain uncompetitive.

Expatriates

267. Many railways in the region do resort to recruitment of expatriates to fill vacancies existing in senior management and professional positions. These are sometimes retired railwaymen. There are other cases where expatriates have been seconded from sister railways, through technical assistance. Such arrangements have enabled the railways in Africa to fill vital skill gaps.

268. However, the usefulness of expatriates depends on the care with which they are selected, consideration being given to relevant skill and experience. This must be seen as stop gap measure, and counterpart local staff must be identified to work alongside the expatriates. There must be a planned rundown of expatriate staff to obviate a situation where they become permanent to the detriment of the local personnel.

TRAINING ACTIVITIES

269. Post-independence management of majority of the African railways placed emphasis on vocational training at the lower levels in the organisation. No provision existed for high level skilled manpower training. A few senior managers were sent for overseas training.

270. However, in recent years a number of railways have striven to make training arrangements for technicians, semi-professionals and administrators. These efforts have included in-house training, sponsorship to overseas courses and secondments to other railways organisations. Otherwise the traditional on-the-job training has remained most predominant.

271. Training for development of managerial skills as opposed to technical skills has been lacking. The little that has been provided has been sporadic and un-coordinated. Numbers of staff sponsored on overseas courses remain small due to high cost of such training.

272. The impact of training for senior and middle management and semi-professional non-engineering skills is difficult to evaluate and it is doubtful whether job performance has actually improved. Some of the common shortcomings of these courses are:

(i) Since the programmes were initially not designed with the objective of correcting any defined skills deficiency, the programme ends up not meeting any particular goal;

(ii) Poor educational background of the trainees, and therefore incompatibility of the content and the individuals ability;

(iii) Unsatisfactory design of the courses;

(iv) Lack of qualified and competent trainers for inhouse courses;

(v) Lack of instruments of evaluation.

273. The study noted that a number of railway organisations have recently engaged the services of consultants to examine their training arrangements and to advise on improvements.

274. Very few of the railways in the region have their own facilities for training of technicians and senior management staff. Where facilities exist, they are mainly for training artisans and clerical staff.

275. Most training activities still lack policy framework and commitment of top management. For training to be effective there should be at least some basic arrangements for management of training which should include:

- Training objectives and policy guidelines
- Responsibility for training
- Determination of training requirements
- Training plans and facilities
- Training budget
- Mechanics for evaluation

In-house training

276. These have been successful for the lower cadres. They are effective in as much as the organisations training policies and management of training are sound. In a number of railways facilities and resources are inadequate. The training personnel are themselves not well trained in the training methodology. Most of the programmes lack clear objectives.

Very few railways have in-house courses aimed at improving managerial skills of senior and middle management.

On-the-job Training (OJT)

277. This is still the most predominent method of training managers and ex-university professionals and technicians. This approach requires a well planned training programe and manuals to guide the trainee while doing the job. The trainer should be involved in the design of the programme. This type of training has been a success with artisans and craftsmen.

Where training organisers and heads of departments have planned the training together for the new management recruits, the training has been reasonably successful.

278. However, some cases of failure have been observed, as where the new recruits are placed to train under uncooperative seniors and without well planned programmes. Attempts to train technicians on the job have not been very successful because often the trainer or the senior technician lacked sufficient theoretical base. The present mixture of both OJT and off-job-training at a training institution provides the best answer.

279. External Training

Local: Different railways make use of local external training mainly in those areas where the skills are non-railway specific. Often such training requires a certain period of practical attachment to a railways institution. This method has been successful provided there is developed a close link between the training institution and the supervisor of training in the railways.

The short external local training provided by the commercial colleges or management training institutions have not been properly utilised by most railways organisations. Often people are sponsored to courses without due planning.

Job-oriented courses have proved very successful e.g. short courses on project planning and appraisal to finance and planning staff. Several local institutions offer specialist courses of similar nature geared to immediate requirements of practicing professionals but very few railways make proper use of such opportunities.

Overseas: Overseas courses often make up for the deficiency in the local facilities and resources. Their effectiveness cannot, however, be overgeneralised. In the technical/professional fields, they have been successfull provided the objectives are clear and the right persons selected for the courses. In management areas it has been difficult to assess since the trainees are not subjected to follow-up after the training.

TRAINING FACILITIES

280. Each of the railways administrations covered by this study has a training centre but in most cases they are centres for unskilled staff, clerical or artisans. In the West and Central African regions, only the RAN (Cote d'Ivoire and Burkina Faso), and Cameroon have intra-African training schools for secondary level vocational training. These schools train, in three years, foremen and supervisory staff of production units. They specialise in:

- permanent way and fixed installations
- mechanical and electrical engineering

- signalling and telecommunications

- operations

The Railways Training School in Nairobi, Kenya specializes in training clerical and supervisory staff, mechanical skilled and locomotive drivers.

Thus, there are no specialised railway training schools in the region for senior staff. They have always been trained outside the continent.

281. However, four subregional training centres are expected to be commissioned as an objective of the Union of African Railways. These are the centres at Brazzaville (Congo), Wardan (Egypt), Zaria (Nigeria) and Kabwe (Zambia). These centres will provide advanced level training.

282. The Brazzaville centre - Ecole Superieure Africaine des Cadres de Chemins de Fer (ESACC) will open its doors in 1987. It will offer, in the initial phase, a nine-month training course for middle level and senior staff from 11 French speaking countries before going on to its primary objective which is to train higher level railway staff over a four-year period. Specific programmes adapted to rail transport have been designed to that effect.

283. The future Brazzaville centre will be an integrated teaching institution, pursuing the objectives of basic training, skill upgrading, retraining and applied research. In addition to disciplines required for engineering, special attention will be accorded to technical training and management.

In-house training institutions

284. These are owned and managed by individual railways. The facilities existing may be a railway training centre having its own classrooms and workshops. They offer multi-disciplinary off-the-job training.

285. In the past these centres have offered basic courses to clerks, artisans, traffic supervisory staff and drivers. They have been useful in providing induction and skill improvement or promotion courses. They are heavily job oriented. They have not offered courses to management or professional staff.

National Training Institutions

286. The national training institutions like Technical and Commercial Colleges, Universities, Vocational Training Centres continue to play important role. General administrators as well as professionals receive their basic training in these institutions.

Regional Training Institutions

287. Up till now the only regional institution offering courses in Transport Management suitable for senior, middle management and semi-professionals is ESAMI in Arusha, Tanzania. Majority of management related courses are short ranging in duration from 4 to 8 weeks. ESAMI concentrates on those specialist courses which do not duplicate those generally offered by national training institutions.

288. In addition ESAMI offers management consultancies and research. In-house programmes can be organised to match specific needs of organisations. ESAMI is cheaper than similar overseas institutions and it is recommended that the railways within the region make use of the facilities.

TRAINING REQUIREMENTS

SHORT TERM

289. In the short term it is proposed that organisations should concentrate on the basic foundation building through design and creation of sound institutional framework. These will include:

- At Ministry level, the creation of a Central Manpower Control Unit with specific functions relating to manpower utilisation in the various modes;
- Creation of well-balanced organisation structures to meet the railways operational and management requirements. These should include a Human Resource Department to deal with human resource development and training;
- Formulation of sound management policies and systems covering finance, manpower and operations;
- Creation of manpower infrastructures such as job descriptions, manpower plans, performance appraisal schemes, training policies and career development plans.

INTERMEDIATE TERM

290. In the intermediate term (3-5 years) specific activities will have to be taken to improve performance of staff through training.

Senior Management

Having evolved appropriate management policies, systems and procedures, senior management must be well prepared to implement and monitor them. Senior management programes in form of seminars or workshops (lasting 3-8 weeks) should cover the following topics:

Action centred leadership

Work improvement methods

Human motivation

Delegation

Communication and management information systems

Use of computers

Group dynamics

Management accounting

Team building

Performance appraisal

Manpower planning

Training needs analysis

Problem solving

Decision making

In addition to the above general and conventional courses, the following subjects should be covered by workshops and in-house courses:

- Transport economics
- Statistics and costing
- Management and operation of rail transport
- Co-ordination of rail transport activities
- Law and procedures governing transport
- Commercial aspects of railway operations
- Study and analysis of transport policy
- Transport statistics
- Finance and financial analysis
- Planned maintenance
- Changes in railway technology

Middle Management:

Seminars or workshops for this category should include the following topics:

Action centred leadership

Human motivation

Barriers to communication

Team building

Appraisal and coaching

Industrial relations

Job instruction

Job design

Discipline

Delegation

Using computers

Report writing

Selection techniques

Negotiation skills

Problem solving

Decision making

Safety and accident prevention

Changes in railway technology

Professional oriented Vocations

- Data processing Operations Management for Computer
- Stock control and Warehouse Management for Stores and Supplies Personnel
- Management Analysis and Operations Research for Planners and Administrators

- Production Management for Production/Maintenance Engineers
- Manpower Development for Personnel Managers
- Training of Trainers for Management/Supervisory Trainers

General

During this time frame it is also recommended that each railways organization arranges for at least one in-house programe on "Railways Management Performance Improvement Workshop".

DESIGN AND DECISION MAKING LEVEL

291. Because of variations and uncertainities in demand, important planning and operational problems arise and hence there is need to study improvements, their justifications and the allocation of investment funds. At the decision-making level, therefore, planning and financial expertise are vital.

These are essential to the administrative mechanism of the networks. There have to be qualified, experienced men in these posts. In general, senior staff recruited straight from university to occupy high level posts in these areas must follow an additional training before being given responsibility.

INTERMEDIATE LEVEL

292. There are facilities locally for training staff of this category, at university institutions and at some specialist schools. Such staff should also follow an in-service rail training course before taking up responsible jobs.

V. INLAND WATER TRANSPORT
GENERAL SITUATION

293. Inland water transport is one of the sectors that are given a special attention within the United Nations Transport and Communications Decade for Africa premised on convictions that the use of natural waterways for transport is a vital necessity in Africa. While river transport may be in an underprivileged position, there is scope for it to prove its usefulness through transportation of heavy goods on high-capacity vessels, and reflecting its ability to form a link in a chain of transport representing the least cost alternative.

294. The four factors that are considered essential for inland water transport development are :

. Waterways equipped with ports (landing stages) ;

. Vessels adapted to the conditions of navigability ;

. Qualified personnel for operation and maintenance of river craft and for management of inland water transport enterprises ;

. Well organised inland water transport enterprises.

295. At present most African rivers and lakes are in their natural state. Ports and landing stages where they exist are not equipped sufficiently and very often have no road at rail connection.

296. In almost all cases vessels are not purpose built and have not been designed planned or built for a specific waterway. African fleets are old and are seldom used for less than 20 years. Consequently, productivity is low.

297. There is a serious lack of skilled personnel at various levels of inland water transport operations, including river fleet personnel, hydrologists, ship builders and inland water transport managers and economists. Consequently efficiency has continued to drop with passengers and goods transported becoming less and less.

298. It is evident therefore that the river and lake transport has not been sufficiently exploited. Measures and strategies to enable the region realise some of the benefit, should be aimed at :

- Improving the management of inland water enterprises and thereby improve operations and equipment maintenance

- Standardising design, and adapting the vessels to the conditions of navigatibility of various African inland waterways

- Providing relevant and adequate training programmes to meet the requirements of personnel.

299. The major African rivers and lakes which offer potential for inland water navigation are in most cases international waterways traversing several countries. As a result, and because of large scale development operations on any section of these waterways may cause substantial alterrations in their courses or speed. The policy for development of these waterways must therefore be based on co-operation amongst all the countries involved. Such co-operation requires the setting up of authoritative bodies to draw up common policies and ensure their implementation.

300. With the continued demands of economic development on improved and expanded transport systems, the requirements for inland water transport improvement will be inevitable and crucial for further economic progress in the region. This development has the training of qualified personnel as one of the key elements.

MANPOWER SITUATION

301. The shortage of trained manpower seems to be a critical constraint to a more effective utilization of the existing waterways, equipment and port facilities in many African countries. In addition to the limited financial resources, the shortage of highly qualified personnel impede the further development of the inland water navigation.

302. The inland water transport is operated in different African countries by state companies, private companies or as in some cases, by individual enterpreneurs. Manpower for inland water transport has envolved in various ways as a traditional profession inherited from father by son, depending on on-the-job training.

For purposes of analysis of the situation, the manpower may be looked at in three broad groups.

(a) Planning, management, co-ordination and supervisory personnel, within the ministries, intergovernmental organisations or private enterprises;

(b) Personnel aboard vessels ;

(c) Shore personnel dealing with both managerial, operational and maintenance activities.

303. Although the problem of scarcity of skilled manpower in the inland water transport has all along been apparent, it has only become critical now since necessity has arisen for the sector to be considered a priority. The sector can no longer be left with a modest role in the countries economy.

304. Amongst the basic problems impacting on manpower availability and capability in inland water transport, and which require immediate attention are :

. In many cases working conditions of fleet personnel of vessels are poor and do not facilitate professional practice ;
. The level of education of most of the staff is very low;
. The status of qualified personnel employed in inland water transport is inferior compared to the status of those in the maritime sector (that is, maritime ports and shipping);
. The fleet personnel lack modern technical know how because they have not kept abreast with technological developments in the industry;
. Managerial training has received little or no attention;
. Because of limited training facilities the only way of getting qualified personnel is training out in certain foreign countries or overseas. This is relatively expensive;
. Where schools exist, there is acute shortage of trained and qualified instructors;
. There is little incentive to attract national (local) specialists and professionals to join the training institutions in inland water transport. The instructors promotional opportunities are limited and the obtaining remuneration low;
. Curricula in those institutions which assist in inland water training are more oriented towards sea-going operations;
. There is lack of co-ordination of manpower activities at the government level. There is a tendency to leave these to the individual enterprises.

305. The study showed that there is urgent need for qualified manpower for the senior and middle management levels at the following levels :

. In the ministry responsible for transport, where there should be established a division dealing with inland water transport policy, planning and development rules and regulations and investments. Such a division would also deal with licencing professional staff.

. In the inland water enterprises to deal with policy formulation; planning, management and operation ;
. In inland water ports to deal with management and operational activities;
. In the inland water training schools where there should be qualified trainers.

306. In addition, and for purposes of smooth co-ordination of various activities and developments relating to inland water transport, there should be established in each of the countries involved, a co-ordinating authority at the national level. Such an authority must be staffed with qualified personnel.

307. As has been illustrated, development of inland water transport in Africa will require a large intake of properly qualified personnel to operate and maintain modern vessels and to perform managerial and administrative functions.

This, of necessity will require sound manpower policies incorporating strategies for manpower utilisation.

TRAINING ACTIVITIES

308. The growing importance of inland navigation together with the developments in methods of inland water transport has necessitated a more serious attention to training.

309. The traditional way of acquiring knowledge by means of long on-the-job training has now been supplemented and complemented with sessions at the navigation schools and some vocational training.

310. The survey showed that in many countries where the inland water transport has been developed, some type of schools have also been set up. Most African countries are now setting up their own centres to meet the needs of recruits and retraining or skill upgrading.

311. A number of national and subregional training establishments with orientation to maritime transport have been doing useful work in training middle level personnel, and also in craft operation and maintenance. In a country like Ghana, officer staff for inland navigation were recruited from amongst those, who for some reasons were not able to continue with employment in the sea going vessels. This provided a ready substitute though not a suitable solution to manpower problems.

312. In addition, a number of fellowships offered by various donor agencies on bilateral or multilateral basis, have been used for training of professionals. Nevertheless the impact of these efforts have remained insignificant considering the continuing critical shortage of trained manpower.

313. The only schools fully prepared for inland water transport are the central Training Institute for Inland Water Transport in Cairo, and to some extent the Inland Navigation School in Kinshasa, and the Centre for Professional Training in Bangui. Inland Navigation School at Kisumu, Kenya closed down in 1965.

314. Although a number of countries send their staff overseas for professional training, progress has been generally poor because the educational background of those sent was too low. They thus found it difficult to follow and go through the course assignements.

TRAINING FACILITIES

(i) INLAND NAVIGATION SCHOOL, KINSHASA, ZAIRE.

315. Has been in operation for more than 20 years. It offers training for both navigation and mechanics. The capacity and location of the school are not considered adequate to match even the national requirements.

(ii) CENTRE FOR PROFESSIONAL TRAINING, BANGUI, CENTRAL AFRICAN REPUBLIC.

316. This centre was set up some years ago with technical assistance from Federal Republic of Germany. It concentrates on training of vessels mechanics. The courses are of 30 months duration and offer Technician qualifications.

(iii) CENTRAL TRAINING INSTITUTE FOR INLAND WATER TRANSPORT CAIRO, EGYPT.

317. The centre has been in operation since 1977. It has got adequate capacity but is grossly underutilised. The centre concentrates on training for river navigation and vessels' mechanics.

PROPOSED UTILISATION OF FACILITIES

318. In proposing the development and utilisation of training facilities for inland water transport in Africa to cope with the requirements, the following have been the influencing factors :

- In Africa, there exists a problem of language, thus consideration must be taken of English and French speaking countries ;
- Some countries are more interested in developing river transport, while others have preference for lake transport.

319. It is proposed that eleven units be established : Four units for English speaking countries, six units for French speaking and one unit for Portuguese speaking countries. These are detailed in the following table :

Table 5.1 : PROPOSED ORGANIZATION OF INLAND WATER TRANSPORT TRAINING CENTRES IN THE AFRICAN REGION

Country	City	Language Status	Fields of training	Proposed influence area	Remarks
1. Egypt	Cairo	Existing from 1975	(a) River navigation (b) Vessels' mechanics	Egypt Kenya Sudan Ugandan	Central training institute for Inland Water Transport proposed to be developed as a subregional training cent:
2. Kenya	Kisumu		(b) Lake navigation (c) Vessels' mechanics (e) Organization planning and management of Inland water transport (IWT)	Kenya Tanzania Uganda Zambia	To be re-established
3. Malawi	Monkey Bay	Established in 1981	(b) Lake navigation (c) Vessels' mechanics	Malawi Zambia Zimbabwe	Project n° MLW/80/081/A/01/19 National school established in 1981 with the assistance of IMCO. Intended to be expanded as sub-regional in the future.
4. Ghana	Accra	To be established	(a) & (b) River and Lake navigation (c) Vessels' mechanics	Ghana Gambia Liberia Nigeria Sierra Leone	To be established within the existing Nautical College as a section
5. Niger	Niamey	To be established	(a) River navigation (c) Vessels' mechanics (d) Inland water port management & operation (e) Organization, planning and management of IWT	Niger, Benin Cameroon, Guinea Ivory Coast Mali, Chad Burkina Faso	To be established
6. Burundi	Bujumbura	To be established	(b) Lake navigation (c) Vessels' mechanics (d) Intl. water port management and operation	Burundi, Cameroon Gabon, Rwanda Chad, Zaire	To be established

7. Central African Republic	Bangui	Existing from 1976	(c) Vessels' mechanics	C.A.R Senegal	Intended to be expanded with additional specializations of (a) and (b)
8. Zaire	Kinshasa	Existing from 1962	(a) River navigation (c) Vessels' mechanics (e) Organis. planning and management of IWT	Zaire Cameroon C.A.R Congo Gabon	To be expanded and located close to the River Congo/Zaire
9. Madagascar	Tamatave	To be established	- Canal navigation (c) Vessels' mechanics	Madagascar	To be established for specific conditions on Pangalanes Canal and lagoons
10. Ivory Coast	Abidjan	To be established	(a) River navigation (c) Vessels' mechanics (d) Inl. water port management and operation	Ivory Coast Mali Senegal	To be established as a section within the Maritime Apprentice Training Centre
11. Angola		To be established	(a) River navigation (c) Vessels' mechanics (d) Inl. water port management and operation (e) Organiz. planning and management of IWT	Angola Mozambique	To be established as a section within the Coastal Navigation shool at Lobito.

Total number of schools	11 from which :
Existing schools	4 Cairo, Bangui, Kinshasa, Monkey Bay
To be re-established	1 Kisumu
To be established as sections within existing maritime schools	3 Accra, Abidjan, Lobito
To be established as new schools	Bujumbura, Niamey, Tamatave

320. Once developed along the suggested lines, the training facilities should observe the following as basic operational guidelines :

- ensuring that training of personnel is made more relevant and closer to their future jobs as far as possible;

- training should be carefully planned is such a way that there should be a built in provision for pre-professional courses in basic subjects necessary to understand the course programme leading to professional certificates ;

- the training facilities be planned in such a way that they provide opportunities for in-service training, retraining through seminars and workshops on a continual basis ;

- ensure the maximum use, in short term of existing training facilities for inland water transport and of existing maritime/marine training facilities for training in selected disciplines relevant to IWT, with a view to developing within the maritime institutions,a department of IWT Training ;

- the training arrangements should facilitate the technical co-operation between African countries in the light of their requirements taking into consideration the need for complimentarity.

TRAINING REQUIREMENTS.

Management and Administrative Staff

321. The main strategy in attempting to meet the training needs of the managerial and Administrative cadres is to update their theoretical and practical knowledge as well as professional skill in the field of inland water transport management, organization and planning.

322. To achieve these broad objectives, it is recomended that courses covering three broad areas be organised either as workshops or courses lasting upto 3 months in the areas of :

. Economics of Water Transport ;

. Organisation and Planning of the Fleets and Ports Operations;

. Commercial Operations.

These broad areas, broken down into sub-components as outlined below, could be offered at the various sub-regional centres as already identified in the table on facilities :

I. Economics of water transport

1.1. Significance of the river transport for economic development of the country;

1.2. Technical basis of river transport (transport fleet, ports and roads, industry) and main trends of its development and modernization Transshipment for loading/unloading operations.

1.3. Utilization of basic industrial funds.

1.4. Systems of payment and labour productivity of the river transport workers; methods of measurement and ways to increase it.

1.5. Cost price of transportation by inland waterways. Expenses associated with the cost price methods of calculation and ways to decrease it.

1.6. Cost price of transshipment. Expenses, referred to cost price, methods of calculation and ways to decrease it.

1.7. Definition of economic efficiency of new equipment (terms and conditions for comparing alternative solutions and absolute equipment), economic indices of comparative economic evaluation of alternatives, definition of economic efficiency utilization of new equipment.

1.8. Economic advantages of mixed sailing "river-sea" ships.

1.9. Planning of water transport (structure and contents of different sections of the plan). Procedure of current planning of transport.

1.10. Financial resources of water transport enterprises (accumulation of monetary funds for the needs of an enterprise out of transportation charges and methods for their effective utilisation. Bank credit). Financial calculations (financial documents, their preparation and circulation).

1.11. Analysis of operational and financial activities of enterprise. Operational techniques and methods of analysis.

2. Organization and planning of the fleets and ports operations

2.1. Management of navigation. Actuality and ways of improving control of the transport process. Control's regulations. Functions, principles and methods of control.

2.2. Specification and classification characteristics of waterways, fleet and ports. Composition and specification of inland waterways. Major elements and their characteristics. A passport system of the technical means of river transport. Technical progress in river transport.

2.3. Principles of planning and organization of transport process. Type and composition of haulages, indices of the volume of haulages and transport operation. A concept of goods and passenger traffic and their characteristics. Technological methods of vessels' operation. Transport operations. Process of vessels' operation and indices of their utilization. Types of navigation. Methods of pushing. Characteristics and classification of cargo lines. Organization of passenger fleet. Organization of ports operation.

2.4. Notion of evaluation of transport operations and the use of cargo transfer means. Contents, composition and preparation of specifications and norms. Evaluation of the use of transport vessels. Evaluation of the time of port facilities (application of evaluation norms).

2.5. Vessel's operations planning. Organization of planning of transport vessels. Contents of and the steps to the preparation of vessels' operational and financial plans. Monthly and voyage types of planning of vessel crews work and organization of their labour. System of indices of vessels' plans. Analysis and evaluation of vessel's plan implementation.

2.6. Planning registration and analysis of the fleet's and ports' operations. Long-term and current planning of the fleet's operation. Development and analysis of implementation of the fleet's movement chart and its service at ports. Planning and analysis of port's operation. Methods of analysis of impact of the main factors on the indices of functioning of the transport process.

2.7. Effective control over fleet's movement and its service at ports. Preparation, registration and analysis of implementation of the technical plan of fleet's and port's operation. Ten day periods and shift daily planning. Structure and functions of dispatcher control over transport process and its processing at ports.

2.8. Planning and organization of cargo haulage by various types of transport.

2.9. Laboratory studies on organization of the fleet's and ports' operation with utilization of models.

3. Commercial operations

3.1. Main documents, regulating operations of river transport.

3.2. Main provisions of the transport law and its application to inland water transport. Responsibilities of the carrier and cargo owners.

3.3. Functions and responsibilities of commercial staff of river companies and ports.

3.4. Operative planning and its coordination with current planning.

3.5. Transportation agreement. Its peculiarities for the inland water transport.

3.6. Cargoes and problems in connection with it. Physical and chemical properties and conditions of transportations of the main types of cargoes : grain, coal, ores, metal, mineral-construction, wood, package-piece, oil, oil products, perishable and dangerous cargoes.

3.7. Cargoes acceptance and transportation

3.8. Transportation documents (invoice, road list, hand in list, loading-unloading statement, Bill of lading)

3.9. Order of transfer of cargoes from the port to the vessel. Preparation of vessels and holds. Plan of vessel's loading. Stowing of cargo in holds. Maximum use of holds and vessels. Determination of cargoes' mass. Finalization of documents.

3.10. Commercial operations in the course of cargo's delivery (supervision of cargo, readdressing, etc.).

3.11. Commercial operations at the cargoes destination point. Order of cargo's transfer from the vessel to the port.

3.12. Order of cargoes' distribution at the store. Time periods and conditions of cargoes storage.

3.13. Peculiarities of commercial operations in cases when cargoes are transported by vessels of "river-sea" type.

3.14. Types of commercial defects. Their registration in documents.

3.15. Rules of passengers' carriage on inland water waterways vessels. Passengers' and luggage tariffs.

3.16. Tariffs for carriage of cargoes by inland water transport. Principles of their calculation. Classification. Order of application. Additional cargoes. Fines and bonuses.

323. Technicians

As the socialisation for this category of staff compare favourably with that of the maritime transport (sea-going) technicians it is recommended that in addition, use be made of those Maritime institutions which are already offering comparative courses. The courses, however, should be designed with the following factors taken into account.

(i) Proficiency requirements of inland water transport as contained in national regulations ;

(ii) Educational and professional qualifications of the staff already in service ;

(iii) Unique needs of inland water transport in contra-distinction from maritime transport.

The programmes should be basically skill upgrading for performance improvement, and majority could be organised at the centres already identified subject to availability of qualified trainers.

324. Trainers :

Training of trainers is an important and crucial element in the development of training systems in inland water transport. One approach which is proposed, is to select efficient and experienced middle managers and professionals and attach them (through arrangements) to certain overseas institutions offering courses in inland water transport. So far the following institutions have a proven record of training in inland water transport.

Strassbourg - France
Pertershagen - Berlin, FRG
Schonenbeck - GDR
Wroclaw - Poland
Rostov - Leningrad, USSR.

Such training could be funded through fellowships on bilateral and multilateral terms.

325. A second approach is to recruit expatriate instructors for specific tours, and attach to the expatriates counterpart local staff to work along side for eventual take over. In selecting such counterpart potential trainers, it is strongly emphasised that basic educational and proficiency requirements be closely adhered to. During this period, they should also undertake preparation of teaching materials, aids, and suitable curricula.

SEMINARS ON REGULATIONS.

326. The study revealed that there was considerable slackness in observing regulations rules and other requirements laid down by the relevant authorities. It is recommended as an urgent measure that short 3-5 days seminars be organised at national levels for managers, administrators and professional staff in charge of fleets, and ports to acquaint them with these rules and regulations, their interpretation and application.

VI. AIR TRANSPORT
GENERAL SITUATION

327. Considering the enormity of Africa's size its wide variation in topography rough terrain, lowlands and arid regions, the numerous rivers, inaccessible tropical forests in some parts which do not lend themselves to development of overland modes, and the lack of well developed surface transport systems, air transport is vital for the general economic growth of all the states in the region. Furthermore, the long distances which separate African countries from the markets for their products make air transport an essential tool for economic development.

328. The lack of adequate surface transport system in Africa and the high costs associated with the construction and maintenance of roads or rail roads often make aviation the most practicable means for initiating and maintaining trade and exchanges among African countries. In this context, where air transport is so vital, aircraft operated by many African airlines are underutilized with the associated consequence of high operating costs. This in turn leads to high fares, which instead of stimulating economic development encourage a state of stagnation. African airlines must therefore re-examine their performance with a view to optimising resources. Which in essence means a critical attention must be paid to those entrusted with management and operations as well as maintenance.

329. The primary objective of the Transport and Communications Decade is the development, integration and co-ordination of transport and communications infrastructures among African countries so as to improve their capacity and expanded regional economy.

330. In pursuit of this broad objective, therefore, existing and potential inter state transport links comprising transit-transport corridors, the trans-African highways and intra-African air links must be given special attention. Contrary to what has been generally assumed, that is, that optimal way of physically integrating Africa is by surface transport modes, the role of air transport, is in fact, crucial. The 1977 report of the International Civil Aviation Organization (ICA0) showed that civil aviation can contribute to the development of African economies. The report identified many opportunities, which advantage was not being taken of; such as cut flowers, meat and handicrafts, and pointed to the increased demand which would result from economic integration activities and the need to improve intra-African air transport services to meet this demand.

331. Air transport is still relatively undeveloped in Africa as compared to other continents. The African network still lacks cohesion. However, according to ICAO's bulletin, Dec. 1984, it is forecast that aviation services will continue to grow but at a lower rate than in the past decade. Some of the factors that influence the rate of growth of aviation services are ; external factors such as general economic activity, international trade, tourism, exchange rate and internal factors including productivity, airline efficiency and marketing policies.

332. All the internal factors so far identified revolve around the utilisation of human resource as a key element in determining the efficiency of an airline. At a meeting of experts on Air Transport held in Addis Ababa 9-12 May 1979, it was recognized that the problem of training is one of the essential considerations in the development of air transport. Also, the results of a survey conducted by ICAO under the auspices of UNDP have led to the formulation of a plan of action which has since been modified by AFCAC to meet the needs of a number of African states for the training of personnel in the various specializations related to aeronautics.

333. The implementation of this plan was also the subject of resolution 568 (XXIX) adopted by the political forums of OAU. The genuine concern for improving the manpower capability of African airlines has thus been given recognition, and reflected in the plans to establish multinational centres for training of pilots and ground technicians - one at Franceville, Gabon for French speaking and at Addis Ababa, Ethiopia for English speaking. These plans have not materialised due to various hurdles, but the broader philosophy is that the question of co-operation in the field of manpower development must be given serious thought, especially in such a sensitive sector as air transport.

334. Plans for sub-regional co-operation in the field of manpower development should not be confined to the technicians and pilots only but should extend to managerial and administrative personnel who are key people in making strategic decisions with regard to marketing and choice between alternatives in investments.

MANPOWER SITUATION

335. In general, the manpower situation amongst the African airlines is one of excess staffing in numbers and shortage of skilled and well trained manpower at the managerial and administrative levels. For any organisation to be effective in terms of operations and managerial foresight, it must be adequately staffed with people who can satisfactorily and competently meet the demands of the jobs or positions they occupy within the organisations structure.

336. The survey showed, however, some fairly unhappy practices arising from poor manpower policies. Cases were noted where people had been appointed to senior positions of management without requisite qualifications. This happens despite the availability of well qualified manpower within the airline or within the market.

337. In certain airlines where policies and procedures on manpower selection exist deviation from the expected practice seems common. Thus it is not situation where the system is defective, rather it is the attitude and disposition of those managers placed in key positions of decision making that tend to ignore the procedures.

338. The situation is, however, not so bleak all round. In some airlines, the study found that standards were adhered to and procedures followed as laid down. A few airlines have staff development plans which prepare staff for succession in a more systematic manner. It is not always true that political appointees are not technically qualified. Cases are in hand where some of these appointees are of sound technical qualifications backed up by a wealth of experience.

339. During the study it became apparent that in most airlines little attention has been paid to manpower planning processes. Even the necessary data which should facilitate a meaningful analysis of manpower trends are not readily available. Yet in order to undertake useful development planning there is need to carry out a manpower audit and get the inventory to be matched with establishment.

Senior Management.

340. An inventory of the qualifications and experience of senior management personnel in African airlines reveals that most of them lack the requisite managerial experience. Thus majority hold positions mainly on the basis of academic qualifications.

341. On the other hand, there are those long serving managers who were recruited with low academic qualifications but have now amassed very useful experience. They too have their own handicaps when consideration is taken of the environment in which they have to operate and the demands of their jobs in terms of decision making.

342. Currently the supply of University graduates to fill managerial and administrative jobs is not considered a problem. What is required is properly planned development programmes, in phases which should include on the job training as well as off the job theoretical sessions.

Middle Management.

343. The study found that this group was well educated personnel with less experience and no exposure. In a number of airlines they are recruited through management trainee programmes. At times the wastage amongst management trainees tends to be high for various reasons including :

- attachement to supervisors with lower educational qualifications who tend to discourage the management trainees ;
- Lack of planned and programmed sequence of activities to be covered during the training period ;
- Attaching them those jobs that are less paying compared to their peers in other sectors.

Because of the output of the local universities in the general degrees, supply is not a major problem.

Professional cadres

344. This group includes pilots, flight engineers and navigators. In order for airlines to operate with the highest safety standards, aviation policies and regulations must be strictly adhered to. There are normally periodic updating of these requirements by ICAO. Pilots and engineers are, under these regulations, required to hold valid licences applicable to the type of aircraft.

345. Because initially the entrants must be well educated and must go through the vigorous training, the failure rate is usually high at the beginning. Upgrading courses also do record a relatively high failure rate. As a result, airlines do face shortage of manpower and experience difficulty in filling all the vacancies in the maintenance and operations areas. There is therefore need to identify critical areas within the framework of a manpower plan. Once such critical areas are isolated, then a long term strategy should be evolved.

346. Such a long term strategy for this category should consist in recruiting brilliant high school graduates or engineering graduates who wish to go into aviation. The number to be recruited at any one time should provide for extras catering for the expected wastage. This should be an on-going exercise.

347. It may also be necessary to introduce some incentives just to reduce the trunover rate. These may take various forms such as bonuses, meritorious awards, long service award schemes etc.

Technicians

348. Majority if not all the technicians employed by the airlines have the required qualifications and adequate attention has been paid to their training. Regular retraining for updating skills are given to the aircraft technicians. Technical instructors have similar development programmes.

349. From the survey the most significant shortcoming vis-à-vis manpower utilization is the lack of a system on which manpower requirements are prepared and subsequent development plans implemented. Most successful airlines have career development plans. Under such a system, complete manpower inventory is taken, performance regularly reviewed and follow-up on areas of deficiency is a matter of policy.

TRAINING ACTIVITIES.

350. The primary concern of most African airlines has been to concentrate on operations as dictated by their establishment objective. Consequently other than technical and professional training, training for managerial, administrative and supervisory staff, has been of a low priority.

351. In a number of airlines the study showed that there has never existed a training department, and whatever training that has been offered has been part of the operations or engineering activities without any budgetry provisions. Such training, when conducted for the non-technical staff is often ad hoc and unsystematic. So far these airlines have no formal way of identifying staff training needs. On the other hand, there are a few African airlines that have invested heavily in training. A good example is Ethiopian Airlines.

352. With regard to technical and operations training (including communications and flight control staff) development programmes do exist. In such situations the staff are normally sent for external training either at other airlines training institutions within the region or overseas. Sales and accounting staff obtain their training mainly through attending IATA organised courses, or at local commercial institutions.

353. Where airlines have developed their own in-house capability, technicians are recruited from high schools or technical schools or polytechnics. They enter service as trainees and undergo in-house training, mainly on modular basis, spread over a period of three years. These are interspassed with sessions of on-the-job training.

354. In addition to the classroom and on-the-job training programmes, the trainees are required to work under experienced engineers. Such guided experience is an important component of technician training since it avails the required exposure. This approach has a couple of advantages. First, it gives the trainee a broad overview of the air transport activities and a clear understanding of the functions of the functional unit to which he is attached, the ultimate job that he will handle. Secondly, the organization is assured of the potential and capability of the individual before he is assigned specific duties.

355. However, the main disadvantage has been the shortage of experienced engineers under who these trainees can work, and receive guidance from. Also, success of the training to a large extent depends on the attitude of the manager or supervisor towards the whole training programme.

TRAINING FACILITIES

IN-HOUSE TRAINING INSTITUTIONS

356. These institutions, established specifically to meet specific needs of individual airlines, are to be found in any airline set up in Africa.

These training facilities have proved very useful for both induction for the new intakes, and skill upgrading. The airline industry being highly specialised, requires constant updating of skills. Since any training external to the organisation is expensive, the in-house facilities do provide a relatively cheaper alternative.

357. Within the region, these facilities vary a great deal, from the very small two classroom type to elaborate fully fledged training schools. Either way, they do offer a wide variety of programmes and train quite a large number in any one year. The programmes range from a three or four days seminar for junior staff, to a workshop for executives. They also provide skill upgrading for technicians.

358. However, these facilities,commonly lack adequate capacities. These include crowded classrooms, poor equipment and lack of training materials and shortage of qualified and competent trainers.

It is recommended that for meaningful continued use of these facilities, the physical capacities should be made adequate, they should be equipped with appropriate and modern teaching equipment and availed proper teaching materials. Every effort should be made to develop trainers from amongst the identified good performers who have the requisite academic and technical qualifications.

NATIONAL INSTITUTIONS.

359. These institutions include vocational and trade schools, polytechnics, national institutions of public administration and management and the universities.

360. The vocational or trade schools provide the basic craft training which is broad, and which only forms the basis for entering a specific job. They are not oriented to any specific industry but provide a base on which specialization may be built. The polytechnics are in the same category though they are at a higher level, offering the Ordinary Diplomas or Higher National Diplomas. The Universities prepare graduates for general degrees or professional degrees but still at a general occupation level not biased to a particular industry.

361. Institutes of public administration or Management schools do provide either correspondence courses in general management studies or short courses in management and administration. These are normally 3-8 weeks courses.

These latter courses are only useful at general management or professional applications but do not meet the specific demands of the airline industry.

The institutes also have a limitation. Because they operate on quasi-civil service terms, they are unable to attract and retain the best trainers.

REGIONAL INSTITUTIONS.

362. The main regional institution which has been able to offer courses relevant to the airline industry is ESAMI, Arusha. For the future, however, it is recomended that ESAMI in conjunction with AFRAA should assist the airlines in organizing tailor made courses suitable to their specific needs. Such a step would go along way towards facilitating regional co-operation and optimal utilisation of existing resources.

ACTION TAKEN.

363. In recognition of the need to strengthen sub-regional capability in manpower development, two projects have been included in the Approved Programme of Action for Phase II (1984-85). These are :

Project AIP-60-003 : The development of Multinational English Speaking Training Centre for Pilots and Aircraft Maintenance technicians at Addis Ababa, Ethiopia.

The main objectives of this project are :

- To train airline cockpit personnel at all levels required as well as aircraft maintenance technicians ;
- To contribute to the continued and advanced training of civil aviation personnel;
- To provide additional training to students from certain other training institutions under conditions to be determined by agreements as concluded between it and other training institutions.

Project AIP-60-004 Establishment of French Speaking Multinational Training Centre for Pilots and Aircraft Maintenance Technicians at Franceville, Gabon. The project aims at providing the French-speaking African countries, whose requirements in professional pilots and aircraft maintenance engineers do not justify the establishment of a national training centre.

GENERAL

364. The study has showed that very few countries in Africa have individual needs of sufficient magnitude to merit the setting up of a national training centre, whereas the collective needs of the states concerned justify the establishment of multinational centres. This approach has an added advantage of standardising training in the region. It is apparent, therefore that with regard to senior and middle management training African airlines will continue to depend on their in-house capability or sub-regional institutions offering general being in transport.

365. The practice of sending trainees to other continents for training, while at times invevitable, partially deprives Africa of the possibility of playing a leading role in its own development and acquiring self sufficiency in the field of training. This situation is particularly acute with regard to the special skills of pilots and aircraft maintenance technicians.

TRAINING REQUIREMENTS.

Senior Management.

366. For this category of staff the study showed that they require training programmes covering the following subjects :

- Corporate Planning, policies and regulations
- Management in Air transport
- Principles of Management
- Planned Maintenance
- Financial Management
- Concepts in Marketing.

In addition to the foregoing, short seminars covering the areas of human relations, group dynamics, communications and decision making should be organised.

It is suggested that for these cadres courses can be organised either as in-house programmes with specially selected external resource persons, or at an identified sub-regional institution as a tailor made course. In this respect it is recommended that where airlines opt for the latter, ESAMI should be involved in organizing the courses.

Middle Management.

This category will require to undergo the general management development courses which should cover :

- Human relations
- Leadership and group dynamics
- Communications, Decision making and Problem solving
- Interviewing and counselling
- Management by objectives
- Planning, scheduling, controlling and evaluating
- Performance Evaluation
- Basic commercial marketing

Administrative staff.

In general arrangements should be made to offer courses covering the following:

- Compensation planning, implementation and evaluation
- Management Policies and Procedures
- Recruitment, selection and interview techniques
- Office Management
- Purchasing and Material Management
- Leadership skills
- Work Planning Methods
- Report Writing.

The above enumerated should be as short in-house courses, spread over a period of upto 6 months to enable trainees sandwich then with on the job practicals.

Training of Trainers

367. In order to assist training personnel and line staff involved in on the job training to effectively perform their jobs it is recommeded that they go through a "Training of Trainers Course". Since they are involved in teaching and guiding learners, the course should be so designed as to provide them with the tools covering methodology, training aids design and the general principles of learning as well as the basic pedagogics.

The broad objectives are to enable them :

- be able to identify individual training needs
- be able to prepare complete lesson plans
- be able to develop teaching strategies suited to course objectives
- be able to evaluate the effectiveness of the training.

The course content should include :

- basic teaching model
- the trainer and his job
- training need identification
- lesson planning
- types and methods of instruction
- training aids
- test construction

The professional trainers should in addition, take a formal course in curriculum development and managing of training activities. These courses can be organised as in-house with external resource capability of or at the sub-regional training institution such as ESAMI as an off-the-job tailor made course.

VII. MARITIME TRANSPORT

General Overview

368. In this study maritime transport has been treated as consisting of the ports on the one side and the shipping on the other. Ports do represent an important link in the shipping chain, both by reason of wide variety of port activities and the key role of port charges in determining shipping costs.

369. Attention to serious port development in Africa is relatively a new activity, which trend could be attributed, in recent years, to the need to meet the infrastructural requirements of foreign trade activities, adaptation to and copping up with the rapid technological developments in shipping industries, and to meet the needs for economic development of the hinterland countries within the regions. The African coastline comprise about 100 maritime ports of which 50 are major international ports. Most of these ports have a further transit significance for the landlocked countries.

370. Nearly all these major ports have sufficient capacity to cope with the volume of traffic currently flowing through and perhaps in the near future. Considerable efforts have been made by African governments in the post independence period to improve/modernize facilities that can cope with increased traffic and larger and new types of vessels.

371. Despite these commendable efforts by the African governments to develop and modernize their ports, the ports are still confronted with operating and management problems. Some of these problems invariably result in temporary or near permanent congestion. Considering that the ports of the region represent one of the largest employers, management and operational shortcomings often take a more complex dimension when industrial relations implications are taken into consideration.

372. Since several studies have shown that the ports have sufficient capacity to handle volume of traffic now, the reasons for inefficiency may be looked at from the point of view of utilization of resources. These range from poor port operations, lack of qualified and well trained personnel, poor or inadequate port organization structures, poor use of storage facilities, poor use and maintenance of multimodal aspects of transportation modes. In some cases these problems are compounded by cumbersome documentation and procedures, wrong type of equipment, and poor manpower policies.

373. Over the last ten years considerable efforts have been made by such agencies as UNCTAD, UNDP, ILO, IMO, NORAD and SIDA to organize and finance several courses and to initiate a number of projects, all geared towards improving port performance. That little improvement has been observed, calls for a re-appraisal of the whole strategy of manpower utilization in the ports. An effective strategy must be evolved which will be based on identified bottlenecks and not on general assumptions. Thus, training should not, in the future, be used as a detached event, serving as a panacea to solve all port problems. Training cannot solve non-training problems.

374. About 90 per cent of Africa's international trade is seaborne which represents a great dependence on maritime transport for her foreign trade. Yet the share of African countries in the carriage of their seaborne trade is very small, barely 1 per cent of their volume of trade traffic.

Table 7.1: The Development of the World Maritime Fleet Between 1970 and 1984

	WORLD FLEET (in million dwt)	SHARE OF DEVELOPING COUNTRIES (in millions dwt)	SHARE OF AFRICA (in millions dwt)
1970	320.1	20.5	1.1
1984	674.5	107.1	7.8

Source: Studies on Maritime Transport, 1984.

375. The table shows that during the period, the world fleet more than doubled while that of developing countries more than quintupled and that of Africa increased sevenfold. This trend shows that the African fleet increased more rapidly than in general. This rapid increase is due to the efforts made by African countries since independence to build up genuine merchant fleets, as well as struggle by developing countries vis-a-vis the international authorities to obtain the right to increase their share in the carriage of their foreign trade.

376. It is apt to recall that when the Code of Conduct for Liner Conference was agreed, the developing countries had hoped that national lines would take their share of the maritime trades i.e. 40 per cent of their national trades. But to this day most of the African countries are taking very little share of this percentage.

377. The share of Africa in export trade has hardly exceeded 12 per cent of cargo loaded or 4 per cent of cargo unloaded. By categories of ships, the African fleet represents about 1 per cent of tankers, 0.2 per cent of bulk universal ore carriers, and 2.3 per cent of traditional cargo ships. The volume of shipping has continued to fall. This trend can partly be attributed to the world recession, and partly to the low operational and management capabilities of the African fleet.

378. Majority of the African shipping lines are newly established and have relatively limited operational facilities and management know-how. Consequently, they are increasingly faced with problems varying from insufficient and unsuitable fleet, lack of qualified manpower, poor fleet maintenance facilities technological constraints arising from lack of highly qualified technical and management staff, competition from liner conferences and lack of coherent maritime policies.

379. Because most of African shipping lines have been set up by the government as public corporations, the terms and conditions of service have been tied closely to those obtaining in respective civil service. This has resulted into comparatively unattractive terms for the highly professionally qualified staff leading to high drain.

Institutional framework

380. For considerable period of time a lot of performance problems have been blamed on such factors as poor or lack of training, poor or scarcity of equipment, shortage of the right personnel etc. Evidence from this study points to a very important factor which has a significant impact

on manpower utilization and efficiency; existing institutional arrangements. These include inappropriate organization structures, lack or outdated management systems, absence of operational, management and administrative manuals, lack of manpower policies including performance indicators and control mechanisms. It is this factor which partly explains the continued poor performance of ports and shipping lines despite commendable efforts by African governments to develop and modernize infrastructures, and despite considerable efforts in training including on-going training projects.

381. Some of the operational procedures in the ports, particularly documentation, are so cumbersome that they breed bottlenecks and provide a fertile ground for corrupt practices. Although a number of ports authorities have taken significant steps (since late '60s) to harmonize organization structures (Kenya, Tanzanzia and Ethiopia) to suit the demands of industry and trade, these have not been able to keep pace with the very rapid developments. Consequently, some of the structures are too cumbersome (as in a situation where 16 functional heads report directly to the chief executive). Such arrangements delay decision-making and result in superficial treatment of important issues. In some instances functions are wrongly grouped with the result that certain of these are neglected.

382. In virtually every port in Africa there exists poor co-ordination among the various administrative departments involved with port operatioins. To keep pace with the high speed technology, antiquated bureacratic procedures have to be streamlined. It must be admitted that during the survey efforts were observed towards this end.

383. One common feature in nearly all African ports is the absence of sound management systems including manpower policies. Only Ivory Coast ports had formal manpower policies. When some sound systems had been introduced, the same have been sidelined. As a result, one observes people operating against unclear policy framework, lack of commitment or professional ethics. There must be authoritative guidance and greater commitment to management systems all the way from the supervising authority.

384. Where there are no set standards such as schemes of service, policy guidelines, procedural instructions etc. managers are bound to abuse their positions. Thus people are bound to end up in positions for which they are ill-suited. Erosion of standards results in inefficiency. Urgent steps must be taken by competent authorities to ensure that standards of operations and performance are clearly prescribed and adhered to.

385. Majority of port authorities and shipping lines are parastatals owned by the governments, and operate under supervision and control of the ministry of transport. Because of their quasi-civil service status, the terms and conditions of service tend to be regulated in some harmony with that obtaining in the civil service. The contradiction however, is that, these port authorities and shipping lines, unlike the civil service are expected to operate on commercial principles and make profit. To do this, they must be able to attract qualified personnel and compete for the share of the market. Yet they are already incapacitated. Consequently, they end up with either permanent shortage of qualified staff or permanent dependance on expatriates for the manning of key positions.

386. In certain African countries such as in Tanzania, the training of professional staff is to a large extent centralized at the national level. All high level manpower is allocated through a national allocation committe. This may limit the ability of individual organization to select and train its own staff. There is therefore a need to review the future direction of these organizations giving them clear and noncontradicting guidelines on how they should operate.

387. The subject of ergonomics has not been given due consideration in Africa when issues of manpower productivity is being discussed. To some extent the performance of people is influenced by the environmental conditions under which they work. Some of the ports are housed in such old and crowded buildings, with poor layout of equipment that performance is adversely affected

(Djibouti, Comoros, Liberia).

388. A strategy for improving manpower utilization must place first priority on these institutional arrangements as to a large extent they are key determinant as to whether or not all other activities such as training will have the desired effect on organizational performance.

Manpower situation

389. For purposes of this study the analysis of the manpower situation has focussed on those features which are considered relevant and essential for a future strategy in manpower planning and utilization. Thus the concentration has shifted more to qualitative aspect than quantitative. As a result there has been no presentation of absolute figures on stocks and flows, as these would have been unrealistic considering the major limitations encountered during the study. These limitations include lack of reliable statistical information, wide variation in manpower infrastructures leading to artificial demand and supply positions, thus existing manning scales are not representative of any consciously conceived plans nor are they related to any key indicators. Attempts to construct manpower models would be an abstraction as it would not represent any one observed situation. In any case model construction requires for validity, regularities in flows over a wide range of conditions. Such trends do not exist.

(a) Ports

390. In all the ports in the region there does not exist a manpower plan. Consequently recruitment is undertaken on ad hoc basis and establishment levels are not permanently set. Thus cases persist of excessive staff or shortage of skilled manpower.

391. Effective and efficient utilization of manpower requires deliberate creation of a policy framework and infrastructures that establish an environment conducive to high performance and motivate employees to set goals. These include:

Schemes of service that have been carefully formulated. Recruitment and promotions are then undertaken within this framework. They should be adhered to.

- Appropriate job descriptions which provide employees with standards of performance and in turn provides the supervisor and the manager with performance indicators.

- Performance review systems which enable the staff to know how they are performing, and the manager a basis to reward good peformance and to identify gaps requiring training or appropriate action.

- Career development plans.

Senior management

392. In most ports, these positions are filled on promotional basis. These are people with long experience having risen through the ladder. Educational background of this category of staff varies considerably ranging from secondary school to university graduates. Most of the established positions are filled. The stability index for this group is much higher. However, it is in this area that there is a need for high managerial skills. These are the people involved in making critical decisions, planning and making risky choices between alternatives. They evolve policy recommendations and rules. Thus, although the positions are filled, there exists critical deficiency in terms of the qualified and competent personnel and attention must be focussed onto this situation.

393. One strategy to deal with this problem would be to intensify senior management training through development programmes intended to upgrade the managerial skill. The other would be to adopt a policy of developing the graduates currently in middle management levels for eventual succession.

Middle management

394. The study found that in this category are some of the most qualified personnel, with a few who are unqualified. The establishment is often filled. This group was found to have attended more port operations courses such as those organized by NORAD in Oslo, UNCTAD's IPP, diploma Courses at Plymouth Polytechnic or UWIST. The most significant feature of this group is that they are well disposed to fit in most management training programmes for port operations.

395. The labour turnover tends to be low partly because of the unemployment situation in most African countries, and partly because for this group, the port as an employer is still considered above other parastatals in offering better terms of service.

396. What is required for this category is a strategy for retention. This should include planned career development programmes, supported by appropriate training and incentives. They should be given guidance through appropriate management systems and sound leadership from the top. If this is done, there should be no deficiency in numbers over the next five years.

397. It must be borne in mind, however, that as the port industry continues to develop, the demands on the managers continue to be more complex. The multimodal aspects of transportation necessarily requires the port management to work in close relationships with other transport modes for smooth hinterland traffic flows. It is this group whose development is crucial for the managerial capability in the next 5 to 10 years.

Professional engineers

398. In this category are included registered civil, mechanical and electrical engineers. In majority of cases they are holders of B.Sc. degrees, and who have been registered as members of their respective Boards. Others would be those with Higher National Diplomas (HND) with considerable experience. There is acute shortage of engineers in all the ports of the region. The study observed that there were no qualified engineers in at least four national ports. Considering the massive investments being made in infrastructure and equipment it is an alarming situation that little attention is being paid to this development.

399. Maintenance staff need professional guidance and supervision. In the absence of such guidance, quality of maintenance continues to be low leading to high equipment downtime or unserviceability of facilities. This accounts for low berth throughput and poor average ship turnround time.

400. This is a critical area both in the short term and in the longer term. The problem is compounded by the fact that the national universities are not able to cope with the demand. Consequently there is a great competition for engineers. One strategy that the port authorities may adopt is to recruit bright high school graduates and sponsor them for university degree courses on bond. The other approach is to select amongst the best technicians and sponsor for HND courses, later to award them certificates which are restricted to the ports only.

It is recommnded that these two approaches be adopted at the earliest.

Professional accountants and auditors

401. In this category are included those who are registered as accountants. Most of them are holders of ACCA, ACMA, CPA et. The main source of these personnel is the professional accounting institutions. A number would have acquired these qualifications through private tuition.

402. This is another area where the African ports are experiencing acute shortage. More than 50 per cent of the established posts for this category are unfilled. Considering the crucial importance of port pricing and tariff construction and maintenance, this manpower situation explains the bad state of accounts in most of the ports in the region. At least three national port authorities had not produced reports on accounts for nearly four years.

403 Urgent planning is therefore required. Unfortunately for the ports, the mobility rate for accountants is extraordinarily high. Demand still outstrips supply. To deal with this problem ports should consider the following options:

(i) Train own accountants to proficiency levels required by the port and award them certificates whose recognition is restricted to the ports only;

(ii) Design a staff development programme which includes selecting best accounts assistants with requisite basic academic qualifications and sponsor them for professional qualifications on bond.

Economists/Port Planners/Statisticians

404. Planning is a key element in port development. Yet the ports of the region have not given it the emphasis it merits. In the whole region, only 20 per cent of the ports have active planning departments. The absence of qualified staff to undertake such tasks as project analysis and appraisals, collection, collation and analysis of statistics, traffic forecasting etc. explains the poor investment decisions being taken with regard to infrastructure and equipment.

405. Urgent steps must be taken to recruit qualified economists and statisticians and train them in port planning courses. Fortunately the market for graduate economists is not very competitive. It is strongly recommended that once recruited they should undergo the TRAINMAR developed port planning course as well as the IPP course.

Purchasing and supplies

406. This is an area where most incumbents hold positions on account of experience only and not professional qualifications. Consequently, the state of the stores, purchasing procedures are in bad state. It certainly calls for a complete review of the staffing strategy.

407. Attention must be focussed onto quality and not numbers. It is recommended that eligible staff be selected from amongst the in-serving staff and be sponsored for professional qualifications. A number of national management institutions offer courses in purchasing and supplies.

Harbour pilots

408. In this category are included those pilots who possess either a chief Mate (FG) or a Class I (FG) certificates. The study found that there is a major problem with retention of local pilots in African ports. Over the past 5 years most ports have been experiencing shortfalls with continued attrition, mainly through resignations.

409. The problem of retention can be explained by the fact that most of these pilots have at one time been sea going captains or chief officers in private shipping lines drawing bigger salaries. The port authorities with their salary structures in harmony with the civil service cannot offer competitive salaries.

410. To train a pilot to Chief Mate(FG) or Class I(FG) takes no less than 10 years. The failure rate also is normally high. Thus a greater lead time is required in the planning process to maintain a stable strength. Considering the fact that all the ports in the region are of compulsory pilotage, priority must be given to the pilot strength.

411. It is strongly suggested that the following measures be adopted:

(i) Efforts be made by competent authorities to offer competitive terms of service;

(ii) Port authorities lower, to say, Class III with Master endorsement the minimum requirement to be engaged as a pilot, such endorsement being restricted to the particular port authority only. Nigeria Ports Authority is already doing this;

(iii) Long term training be continued with provision for, say 50 per cent wastage.

Marine engineers

412. Like pilots, qualified marine engineers are in short supply. The factors leading to the shortage are identical to those affecting retention of pilots. Yet with heavy investments in marine craft such as modern harbour tugs, salvage tugs and dredgers, the important role of marine engineers cannot be over emphasized.

413. The problem of this shortage is aggravated by the fact that there are no national training institutions catering for advanced courses in marine engineer training. The training itself takes as long as 10 years requiring carefully planned programme.

414. It is necessary that competent authorities review the terms of service and also adopt a longer term continuous recruitment programme based on a carefully planned approach which plan should take into account the wastage as well as the likely failure rate. Unfortunately for marine engineering, standards cannot be lowered.

Technicians

415. In this category are grouped various trades of technicians who have attained the skill proficiencies of Full Technological Certificate (FTC). This group basically undertakes maintenance work in the ports. They are therefore a key element in the efficiency of a port. Because there is shortage of this cadre, maintenance work is in general relegated to the artisans, accounting for poor state of equipment and infrastructure. There is also a high turnover of technicians. It is recommended that the following steps be taken:

(i) Sponsoring selected skilled artisans with potential to train as technicians at the local polytechnics;

(ii) Developing appropriate conversion programmes to run parallel with ongoing infrastructural modernization and developments;

(iii) Planning a well phased recruitment programme also to run parallel with other port development activities.

(b) Shipping

(i) Shore-based personnel

416. In this group are included such positions as fleet managers, stores and purchasing managers, cargo claims managers, legal officers, chartering managers, marine superintendents, cargo booking managers, etc.

417. It was evident that most shipping lines in the subregion did not provide establishment for this category of staff, and they would seem to have been employed fairly randomly. Looking at the decision making process and the quality of output as seen in the shares of the markets, losses, etc. these positions have not been given critical attention. Positions are held by people who are less qualified. Examples were observed where a National Shipping Line laid up two ships for "Lack of cargo and utilization". With well qualified and trained managers such a situation should not arise, particularly when one considers that the same line had just purchased four ships in under a year.

418. Since nearly all the shipping lines visited had no schemes of service for the shore based staff, it became difficult to know the type of qualifications which were considered necessary for various positions. This has provided a loophole to staff positions with unqualified persons whose individual abilities are incompatible with course content. However, one or two of the national lines have recently tried to improve on this.

419. In the absence of planned establishment for the shore-based staff a dual situation may exist: overstaffing and understaffing. Overstaffing in that there may be more people than are required in terms of physical numbers. Understaffing in that there may be shortage of the type and calibre required to effectively execute the functions of the positions.

420. As a first step therefore, these lines must evolve suitable establishments for the shore-based staff and fill these through proper recruitment procedures within the requirements of a sound scheme of service (which must be evolved).

421. In conclusion, therefore, if the national shipping lines are to grow out of their existing malaise attention must be focussed onto the quality and quantity of shore-based staff who are the decision makers, planners and controllers of the fleets.

(ii) Sea-going personnel

422. Virtually all the shipping lines visited had deficiency in the sea-going personnel ranging from acute shortage to minimal shortages. This also represents an area where management cannot afford to place unqualified persons in any positions. The skill requirements for manning vessels are set by international instruments which have, in most cases, been ratified, and by the national legislations on merchant marine requirements.

423. As a result of these conditions, where the lines experience shortage, recourse has been made to employing expatriates. It was observed that half the fleets in the subregion are manned in one way or another by expatriates at various levels. In particular at levels of masters, chief engineers and radio officers. Observation of the past trend (i.e. for the last five years) shows that the problem of deficiency in senior sea-going personnel has continued to grow from bad to worse. In one situation a national shipping line which had only 9 expatriates in 1975, had 65 by 1985. Another had had expatriates in the key positions of Master, Chief Engineer, First Engineer and Chief Officer for the past five years. In other words deficiencies seemed to have been institutionalized.

424. In an exceptional case, a national line had excess of senior sea-going staff to the extent that it had to lay off most of them. However, such surplus is considered temporary and artificial since it was occasioned by the line having reduced its fleet form 22 to 7 in a period of 5 years.

425. In the past, staff in this category have been trained overseas, requiring a very long lead time - 10 years to obtain Class I Deck or Class I Engine certificates. In addition the training is expensive. At the present time part of the training (upto Class III Engine and Deck) can be availed at a number of maritime institutions in Africa, e.g. AMTA and Regional Maritime Academy, Accra, Ghana.

426. From available records on labour turnover, this group tends to be fairly mobile registering a relatively lower stability index. However, the mobility rate seems to be higher at the most senior levels, and almost zero at the lowest, that is at Class 5 or Cadet level. It is at this low level that most of the lines are overstaffed. For instance, on the east coast, higher manning scales are applied when compared to the ocean going ships. An ocean going ship of 500 GRT and above had a scale of 35, while a similar ship plying coastal waters had manning scale of 45.

427. A positive observation with regard to this category of staff is the way in which the shipping lines have made good manpower investments. Practically every shipping line had a number of its personnel at various stages of training in different training institutions, mainly overseas. The following figures were noted in respect of three countries.

Country	No. in Training
Tanzania (SINOTASHIP AND TACOSHILI)	63
Ethiopia (ESLC)	28
Nigeria (NNSL)	86

428. The age distribution showed that most of the staff in this category fell between 30 and 45 thereby presenting less problems should wastage be purely due to natural causes such as retirement. However, since wastage has been observed to be mainly caused by resignations, it necessitates provision for this relatively higher turnover in the planning process. In addition, by their very nature, nautical studies have a fairly high failure rate. In majority of institutions where these courses are offered to Class I level, the survival index per course is relatively low.

429. Emphasis has been put all along on the need for proper manpower plans. However, to be of practical use, a manpower plan must take into consideration the sensitive areas of providing both key personnel and the conditions needed to attract, and to retain their willing co-operation. The crucial point is, manpower plans cannot effectively be confined to estimates of the probable nature and range of future personnel requirements.

430. They must also take into account the opportunities and constraints which lie between the present situation and what is likely to be the desired state of affairs in the future. The plans must design and plan for management of this process, and should be regularly serviced by management.

Training activities

431. The last 10 years have witnessed increased training activities within the maritime sub-sector. These activities have varied from the traditional on-the-job training (OJT) through formal classroom tuition to the off the job attachments and study tours. UNCTAD, IMO, UNDP, SIDA and NORAD have concentrated on courses for managers and supervisory personnel while ILO has concentrated on dock labour training.

432. Whereas courses of various contents and programmes with various objectives and strategies have been organized, performance has not improved in the ports and shipping operations commensurate with the volume of training activities. This failure may be attributed to such factors as:

- the absence of maritime training policy;
- inappropriateness of the programmes;
- poor educational qualifications of the trainees;
- lack of qualified and competent trainers and lack of training materials;
- poor facilities for training;
- institutional problems: training may have been applied to solve a non-training problem.

In general, training ought to take place within policy framework, providing:

- general objectives
- training plans supported by budget
- procedural requirements
- responsibility and commitment
- control systems
- built-in evaluation mechanics.

These elements enable the training to filter back into the general managerial and operational processes.

433. Most training have taken the following forms:

- On-the-job training
- In-house tailor made courses
- Task oriented training
- Short courses
- Practical attachments
- Fellowship based training
- Post graduate courses
- TRAINMAR developed courses
- IPP courses

On-the-job training

434. This has been the traditional way of training port personnel and sea-going staff. To the extent that the trainee gets the basic skill and the knack of performing the tasks, this method continues to be a reliable method of training. However, for its success, the supervision must be of high standard and the trainees must be attached to the best performers. Activities must be arranged in such a dequence that the trainee is able to see them as part of teh overall task.

In-house tailor made programmes

435. In-house courses have been effective at appreciation level and where a specific objective is to be achieved within a short period. Some of them have not achieved desired results because of limitations of the resource persons, and partly due to inadequacy in content planning. In addition, the trainees must be able to see the content as part of their overall day to day activities.

Nautical based training

436. The present approach to nautical based programmes has been effective in producing professionally qualified personnel with proven experience. All the theoretical training is offered mainly overseas (except at AMTA) with sea time being obtained during practicals at sea.

Short courses

437. Short courses have had mixed results. On the one hand they have been useful to participants at theoretical level in updating their knowledge and providing them with new management tools. But the trainees have not had the opportunity to fully apply these tools because of re-entry problems brought about by institutional limitations.

Practical attachments

438. To some extent these have been useful but have suffered from the following limitations:

- lack of similarities or common characteristics between the two organizations;
- environmental factors: because they are of short duration, climatic, cultural and language differences impose limitations on the learning process.

TRAINMAR courses (UNCTAD)

439. TRAINMAR courses, mainly for managers and supervisors, are prepared in the form of a package and are then run as many times as necessary by local instructors - specially trained for this purpose. Currently there are four centres in Africa developing and adapting the courses (Mombasa in Kenya, Abidjan in Ivory Coast, Maputo in Mozambique and Tunis in Tunisia).

TRAINMAR has also established detailed methods of developing training material and ensures that the required standards are kept. The courses, which are reproduced as Annex 6(a) have been very useful.

IPP courses

440. Improvement of Port Performance (IPP) is a project organized by UNCTAD and SIDA. It has three stages:

- the centralized preparation of validated training materials for the delivery of course by local instructors;

- the training of instructors from Port Management institutes to enable them conduct UNCTAD developed courses in their own countries;

- the provision of further advice and assistance to help developing countries implement these training programmes.

The first course to be developed under these series, Management of General Cargo Operations, is in 18 audi-visual programmes, in 8 study units. See Annex 6(b) for details.

IPP represents a relatively new concept in port management training, and should be used by all port authorities.

Training facilities

441. The study confirmed that many African countries have taken considerable steps to create one form or another of training institution. The scope of their activities vary considerably. The level of development of these instituions also vary.

North African subregion

442. There are three advanced maritime training institutions providing courses leading to Masters and Class I Engineer.

(1) The Arab Maritime Transport Academy, Alexandria

Established in 1972, with the following objectives:

(a) To provide basic training for deck, engineering and radio communications cadets leading up to their first certificates as watchkeeping officers at sea;

(b) To provide upgrading courses to prepare deck, engineering and radio communication officers for their higher level professional qualifications or certificates of competence;

(c) Training of shore-based personnel for managerial positions in the various shipping companies and other maritime organizations to ensure sound management in business administration;

(d) Basic and higher training for all ratings working on board merchant ships as seamen, mechanics and electricians;

(e) Conducting studies and research in the fields of economics and statistics to ensure optimum running of African fleets.

Its activities are built around the belief that shipshore bivalence in education and training is essential for the benefit of all parties involved in the shipping industry.

The Academy has the following departments:

- The Nautical Studies
- Marine Engineering
- Radio and Electronics
- Academic Studies
- Maritime Studies
- Sea Training
- Specialized Seamen's Training Centre.

The courses provided are annexed hereto as Annex 9.

L'Academie Maritime de Bon Ismail, Algeria

443. Provides courses for senior sea-going and engineering personnel as well as limited courses in port management.

L'Institute d'Etudes Superieures de Casablanca (Morocco)

444. Provides training for sea-going, engineering and port management staff.

Regional Arab Institute for Ports and Shipping

445. This institute is under the general supervision of the North African Port Management Association. The centre is being developed under UNDP Project RAB/82/025. The main focus currently is on the IPF courses.

West and Central Africa

Regional Maritime Academy, Accra, Ghana

446. The Academy which operates under MINCOMAR was transferred from the Ghana Nautical College on 23rd May 1983. The Academy offers courses as follows:

(i) Deck Department

Pre-sea cadet
Shippers
Deck hand
Tugmates (offshore)
Class III
D.O.T. courses offered on ad hoc basis

(ii) Marine Engineering Department

(iii) Marine Radio and Radar Department

(iv) Engineering Department

(v) Nautical Department

(vi) Radio/Electrical department.

With an annual intake of 150 students over the last 6 years, the Academy is operating at 50 per cent capacity. There is a shortage of teaching staff although a team of maritime lectures from AMTA are currently running the courses under technical assistance. The team is funded by the Egyptian Fund for Technical Assistance, and the UNDP and NORAD through TCTD facility. The Academy is also short of training equipment. Perhaps the biggest problem facing the Academy is financial. Although there are five countries who should be sharing costs (Ghana, Liberia, Sierra Leone, Cameroon and Gambia), it is only Ghana which continues to foot the cost of running the centre.

During the study it was noted that project RAF/84/023 will make a considerable expansion in infrastructure when it is completed in 1987.

To be able to operate as envisaged in instruments of establishment MINCOMAR is requested:

(a) To take measures to ensure that each country pays its contribution;

(b) To take steps to improve the terms of service of local staff using a uniform remuneration system;

(c) To take urgent necessary steps to implement the staff development programme as recommended in the project document;

(d) To undertake urgent repair work on infrastructure and equipment to avoid further deterioration.

L'Academiie Regional des Sciences et Techniques de la Mer, Abidjan

447. The institute belongs to 15 French speaking countries. New buidlings to house the Academy are being built and are expected to be completed in early 1987. The Academy will open its doors to students in October 1987.

Mano River Union Maritime Training Institute, Marshall City, Liberia

448. The institute was established in 1982 by the Mano River Union (Sierra Leone, Guinea and Liberia).

The objective of the institute is to educate, train and develop sea-going personnel from the member countries of Mano River Union. During its two years of existece, the institute has graduated 55 students in pre-sea general purposes Ratings and Upgraders.

The institute is faced with grave financial problems as it only depends on Liberia's subvention. The institute is currently underutilized.

Recommendations

(a) For the courses it is offering, the institute is adequately staffed. However, the institute will need additional training equipment.

(b) The institute should not plan to offer any higher courses than it is doing now. Advanced courses should be restricted to Regional Maritime Academy in Accra.

(c) Mano River Union should take serious steps to solve the financial problems of the institute.

(d) Training manuals should be updated and be in line with IMO requirements.

(e) The wharf which is necessary for shipboard training should be rehabilitated.

L'Ecole Senegalaise de formation maritime

449. This institute provides courses leading to certificates in fishing and coastal shipping. Certificate of seamanship, skipper, master of home trade navigation, mate etc.

Eastern and Southern Africa

Bandari College, Mombasa

450. The college which is owned by the Kenya Ports Authority was commissioned in 1980 and its facilities are open to other countries in the subregion. Currently it is offering junior management, supervisory, clerical and technical courses as well as dock labour training. As at December 1984, it had trained a total of 3,300 personnel.

In addition the college has a TRAINMAR course development unit which has developed four courses (see Annex 6(a)). It also offers IPP courses. The college has ample capacity but is operating only at 60 per cent. Plans are underway to construct a nautical wing including a department for maritime studies. So far the bulk of the courses that have been offred have been limited to lower level management, supervising and clerical or dock labour, except in the Senior Port Operations Management Course. Very little has been offered in Shipping and Maritime Transit Services.

It is recommended that the college be converted into a subregional training centre. Details of this conversion are shown in Annex 9.

Bandari College, Dar es Salaam

451. The college is owned by the Tanzania Harbours Authority (THA). It lacks major workshop equipment and has operated at about 20 per cent capacity since its opening four years ago. Over this period it has offered very junior courses to supervisors and clerical staff as well as artisans.

The college was originally conceived of as a ports performance improvement institution which would offer more tailor made courses to meet the identified needs of THA. This has not been very successful.

The college has remained underutilized for considerable time.

Recommendations

(a) THA should redefine the objectives of the college and give it direction by identifying its mode of operation;

(b) Position of the college within the organization structure should be reviewed with a view to making it be involved in overall training activities.

(c) THA should evolve a formal training policy which will give the college operational framework and guidelines;

(d) Long term staff development plan for college staff is urgently necessary;

(e) The workshops should be equipped at the earliest.

452. Within a defined policy for the training programmes, these institutions should be categorized into groups reflecting the levels and scope of courses to be offered. These levels would be national and subregional.

Level one

453. Here would fall the port/national training institutions whose major attributes would be:

Objectives: To improve the performance of the ports/shipping lines by providing skill improvement courses for port operators, maintenance staff, upgrading of ratings and low level deck/engine staff, dock labour and other support staff. Also for maritime services staff.

Scope: The programmes will be limited to supervisory training (except for the in-house) courses and maintenance technicians.

Level two

454. In this category are those institutions which are considered of adequate capacity and suitable location to serve subregional needs.

Objective: To improve the performance of the subregional maritime transport sub-sector by providing training programmes for:

- Skill improvement courses for managers;

- Management development courses;

- Integrated courses for shipping, ports and maritime transit services. In addition to integrated courses, these centres should offer courses in the fields of:

  - Pollution Control

  - Course Development

  - Training of Trainers

  - Nautical Courses

  - TRAINMAR and IPP Courses

Mode of operation

Under supervisory control and guidance of multinational board of governors, will have defined operational guidelines, a co-ordinating and montoring unit, curriculum development unit and an academic board.

Conversion arrangements

455. Conversion arrangements should be undertaken in accordance with the Critical Path Network (activities CPN) annexed as Annex 9(b).

This is not rigid as the point of commencement will depend on the present stage of development.

Implementing the above system will lead to:

- optimization of the available capacity;
- planning for the training needs at the national, subregional and regional levels;
- co-ordination of development planning of the institutions and their activities;
- economy of scale, with equipment, depreciation and operating costs shared among a larger number of countries instead of being borne solely by a country in which the institute is located;
- introduction of new disciplines such as one for maritime affairs in institutions where there is sufficient demand from the countries in the geographical area;
- prevention of the proliferation of training institutions and the wastage of resources: capacities will be matched to the present and future needs;
- co-ordination of training institutions at the subregional and national levels should make it possible to relate the disciplines taught at the intermediate and junior centres to those taught at the advanced institutions;
- the advanced institutions could, in addition to their general functions, conduct studies and research in the field of maritime transport to provide a practical and experimental dimension to refresher and retraining courses and thus establish a framework for the exchange of experience and resources.

Training requirements

456. It is a normal practice to express training needs in terms of obsolute numbers to be trained over a period of time. Such numbers are derived from manpower projections and training plan. In this study, this approach has not been adopted for reasons already given elsewhere under methodology. Areas of deficiency and key elements of jobs to be adequately catered for in terms of skill have been analysed and recommendations on closing these gaps in performance given in form of courses and training strategies.

(a) Short term (next 1-3 years)

457. In the short term attention will have to be focussed on the required institutional adjustments and the continuation of ongoing programmes.

Ports and shipping lines will have to address themselves to such basic issues as:

(i) Creation of manpower infrastructures such as schemes of service, job descriptions, performance review systems, staff development plans, establishment of training policies.

(ii) Evolution of and implementation of management systems such as operations, financial and administration manuals which will specify such procedural requirements for recruitment, promotions, etc.

(iii) Commitment to institutioinalized management principles which should eventually bring about commitment to one's job, recognition of work ethic, and some form of protection from the top. This will enable managers and supervisors to operate without fear.

While the suggested institutional adjustments are being undertaken, programmes that are currently on-going should continue to be serviced. However, attempts should be made to build into them evaluation mechanisms to determine whether within modified institutional framework these programmes are still relevant and necessary. Such a mechanism can be established by initially casting back the programmes to the original goals to be achieved.

In this way it may be possible to observe certain deviations which can then be adjusted at the intermediate stage.

Intermediate term (3-5 years)

458. Assuming that the short term recommendations have been implemented the following are areas that will require critical attention for performance improvement action as indicated:

Ports

(i) Senior management:

Key issues for the senior managers are how to cope with technological advancements, increased investments in equipment and infrastructure manpower utilization, control systems, containerisation effects, pricing of port services and legal implications of various maritime policies and legislations. The managers therefore will require courses that will enable them to deal with the above issues with competence and confidence. Courses covering the following topics, and of duration of 3-8 weeks will be necessary:

- New Developments in Ports and Shipping
- Multimodal Aspects of Transport
- Maritime Regulations and Law
- General Port Management
- Container Terminal Operations Planning and Management
- Port Pricing
- Pollution Control and Maritime Safety
- Equipment Maintenance

- General Cargo Operations

- Computer Applications

- Manpower Planning

- Industrial Relations

- Financial Appraisal and Planning

- Management Information Systems

(ii) Middle management:

Middle managers include functional specialists in various departments but exclude (in this context) such professional specialists as Accountants, Economists and Engineers.

Key issues in their day to day performance include need for conceptual tools and also the strengthening of their supervisory ability. They will require courses designed to improve their skill proficiency and managerial competence. They will therefore require two broad group of courses:

(a) Diploma or postgraduate courses specifically tailored to their various areas of specialization or (in most cases), broad based diploma courses covering various aspects of port activities.

(b) Short General Courses of upto 5 weeks including the following subjects:

- Cargo Handling

- Container Terminal Operations

- Management Informations Systems

- Port Pricing

- Manpower Planning

- Purchasing and Supplies Procedures

- Port Policing and Security

- Health and Safety

- Documentation

- Industrial Relations

- Multimodal Transport

(iii) Junior management:

These include supervisors, and are the personnel who should be prepared to move into middle management positions. The junior managers training strategies should be twofold:

- One based on, identified career development pattern;

- The short performance improvement courses.

The short courses of upto 3 weeks, should include the following topics:

- Industrial relations

- Supervisory role

- Port statistics

- Budgetary control

- Planned maintenance

- Management principles

- Safety in the port

(iv) Port Accountants and Auditors (Professional)

In addition to the general management courses already recommended for middle managers, the accountants would require skill upgrading courses to cover specifically:

- Port pricing and tariff maintenance

- Statistics

- Financial planning and cost control

- Computer applications

- Management information systems

(v) Economists, Port Planners and Statisticians

Key issues for the performance improvement for this category are; the need to have reliable data base for planning, port planning techniques and traffic projections. In addition to middle management courses, they will require specific courses on:

- Port economics

- Manpower planning

- Quantitative methods

- Traffic forecasting

- Environmental planning

- Computer applications

- Management information systems

- Port planning

(v) Harbour Pilots, Hydrographers and Marine Engineers

In addition to general management courses for those in managerial positions, skill upgrading courses specifically designed for this group would include:

- Changes in relevant international regulations

- Protection of marine environment

- Review of new technology relative to ship operation

- New maritime technology

Basically these programmes are to be designed to help these officers remain current in their specific areas of operations and in the maritime field in general.

(vii) Technicians (FTC)

Basically this category includes only those technicians who have attained the level of Ordinary National Diploma (OND), Part III of the City and Guilds or Full Technological Certificate (FTC).

They will require mainly planned maintenance courses. These would cover various areas such as:

- Civil engineering

- Mechanical, mobile and other cargo handling equipment

- Electronics

- Electrical installatioins, etc.

Because each port has its own unique features in terms of infrastructure, equipment and plant, these courses should as far as possible be tailor made in-house and be task oriented.

Shipping

(i) Shore Based Personnel

This category of personnel are involved in such activities as negotiation, broking, fleet management, accounting, cargo claims, chartering, etc.

Many of those courses in general management are considered relevant to the senior and middle managers in the shipping lines.

In addition to integrated courses, the following specific topics would be appropriate:

(1) Senior Management

- Shipping trends and developments
- Financial arrangements
- International maritime regulations
- Scheduling and routing techniques
- Voyage planning
- Protection of shippers' interests
- Investment analysis and appraisal
- Computer applications
- Shipping economics
- Industrial relations
- Multimodal transport

(2) Middle Management

- Financial management
- Voyage planning
- Shipping accounts
- Shipping economics
- Computer applications
- Systems analysis
- Conference procedures
- Chartering
- Broking
- Documentation
- Insurance
- Marketing

(3) Junior Management

- Shipping Accounting
- Documentation
- Stock control
- Industrial relations
- Supervisory role
- Storage
- Introduction to computers
- Customs regulations
- The port and its users

(ii) Sea-going Personnel

The training for sea-going personnel is governed by international conventions and regulations. In addition these are in accordance with national maritime regulations obtainable in each country.

The training requirements as laid down by IMO standards are contained in Annex 5 and should be taken into consideration when drawing training plans for sea-going personnel.

Maritime Transit Services

It is considered that to have a total approach to performance improvement in the port, the maritime transit services (clearing and forwarding companies) must also be brought within the framework of proposed training strategies. The following courses are considered vital for various categories.

Operations Personnel

- Basic import, export and shipping procedures
- Document preparation and processing
- Method of cargo handling and storage
- Client relations
- Customs procedures, regulations and tariffs
- International trade, insurance, law and banking

Accountants

- Specialized accounting skills

- Computer applications

- Systems analysis

- Data collection and maintenance

(iii) Long term

459. The longer term time frame envisages the full operation of the main recommendations on the utilization of existing training facilities. The following activities are considered necessary to be undertaken during this phase:

(a) Evaluation of measure of objective achievement on institutional adjustments as suggested under short term phase.

(b) Monitoring of the performance of built-in evaluation systems such as the performance of the model berth.

(c) Subregional institutions, as recommended, should be operational, and in particular, nautical based courses should be offered at subregional level within the proposed framework.

(d) The proposed Association of African Maritime Training Institutes may be re-visited with the operational capability of the subregional training institutions having been appraised.

(e) Expansion of TRAINMAR and IPP activities should be pursued. The two projects are already planning the development of new courses and continued adaptation of existing ones in all the centres up to 1990. SIDA has already accepted to finance extension of IPP project over period 1985-1990.

(f) In this phase priority should be on the development of manpower capability for the training institutions. In this instance, therefore, emphasis should be on:

- Training of trainers

- Development of training materials

- Strengthenbing of the subregional pool of instructors

- Establishment of formal mode of co-operation between the subregional instituions

- Strengthening and reactivating the role of the Port Management Associations in training activities by canvassing for fellowships and commissioning specific studies on performance improvement for specific areas.

- Organizing a seminar or symposium for trainers to review the performance vis-a-vis short term and intermediate term activities.

ANNEXES TO THE REPORT

ANNEX I

TERMS OF REFERENCE

1. Project title: Manpower and training survey in roads, railways, inland water, air and maritime transport

2. Background and justification

The supply of skilled and well-trained manpower must increase if African countries are to effectively play their growing role in the development of domestic and international transport. Thus, there is an urgent need to improve the quality of human resources and training institutions in the sector. African skilled manpower requirements in the transport sector cannot all be met by overseas educational and training institutions alone. A great deal of institutional improvement and expansion is needed in the region for all levels of manpower development. Even in respect of high-level training, it is doubtful whether the range and numbers likely to be needed can all be produced by institutions in advanced countries. Taking these points against the background of the requirements in the growth of the transport industry in the region, it seems reasonable to conclude that, whilst external assistance through executive manpower development would be of great benefit, the bulk of the manpower shortage in transport will have to be solved by institutional arrangements within the region.

Almost all African countries have their own training institutions of some kind covering one or more fields of transport by mode. Many of these institutions, big or small, are operating at national levels for the training of lower and middle staff. A number of them are run by transport ministries and agencies as "training wings". The majority of these types of training institutions cannot cater for training requirements of middle and senior staff charged with policy and decision making responsibilities in administrative and technical issues. As a result of this, overseas training often supplements the local requirements. But this should not extend to fields where the region can be self-sufficient given some appropriate institutional arrangements.

Besides the inadequacies of training institutions of high level manpower, another area of concern is the shortage of training equipment and qualified trainers in the few institutions which deal with high level manpower training in transport. The training curriculum of the existing institutions also have deficiencies. For any curriculum to infuse the necessary capabilities and qualities, it must be so designed to promote and foster the right knowledge, skills and attitudes. These characteristics of a good training curriculum are not common in the few transport training institutions in Africa. Experience gained from the United Nations technical co-operation activities continues to confirm that many transport agencies are committed to management training at different levels; but they still do not have adequate skilled manpower, so they need help in designing sound training policies; suitable curricula content, meaningful training methodologies and appropriate support for training. These issues remain a subject of continuing concern as far as the development of skilled manpower in all modes of transport is concerned.

There is, therefore, a need to determine the manpower and training requirements of the various transport modes (roads, railways, inland water, air, and maritime transport) for senior and middle level management, administrative and technical staff. The

assessment of the performance of existing transport training institutions in this regard also has to be carried out, including suggestions on possibilities of using local institutions of higher learning for the development of manpower skills in transport. The survey is also to assess the weaknesses of facilities and curricula of the existing training institutions and draw up proposals for their improvement.

The target group

The survey is to focus on senior and middle level management, administrative and technical staff in roads, railways, inland water, air, and maritime transport. It is also expected to shed light on the manpower and training requirements of trainers in the various national, subregional, and regional transport training institutions including those of higher learning which offer specialized courses in transport.

3. Special considerations

The project is complementary to the on-going survey of manpower and training needs in general and multimodal trnsport, and to the projects on training and technical assistance included in the United Nations Transport and Communications Decade for Africa (UNTACDA). The project will serve as guideline to member States in the development of manpower in the transport sector by mode. It is also to serve as a guideline to the development of trainers, training facilities, and curriculum in the various transport institutions which are either to be strengthened or established during the implementation of UNTACDA and after.

4. Objectives

(a) Long-term objective

The long-term objective is to improve the knowledge and skills of senior and middle management, administrative, and technical staff in all modes of transport, including also the upgrading of trainers, training facilities, and curricula of the existing transport institutions which in turn will contribute to the improvement of transport.

(b) Immediate objective

The immediate objective is to carry out a survey of manpower requirements and training needs for all modes of transport, and to prepare a technical publication in which strategies and recommendations for the improvement of manpower and training needs by mode is spelt out; highlighting also on improvement of manpower and training needs for trainers in the existing transport training institutions in the region. The survey is also to identify the bottlenecks of existing training institutions and recommend appropriate actions to be taken to overcome identified problems.

5. Output and activities

(a) Output

A survey report (technical publication) on manpower and training needs in all modes of transport is to be prepared containing the following:

(i) a report and an analysis of the present situation in manpower and training needs in each mode of transport, and its effects on the performance of the respective modes;

(ii) and inventory, by mode, of areas where bottlenecks on manpower and training requirements are critical, and proposals on how to fill the existing and future gaps;

(iii) the identification and analysis of the main constraints in manpower and training requirements by mode and an assessment of the future trend;

(iv) the description and analysis of the present situation regarding the training institutions for high and middle level transport staff highlighting the availability of such institutions, the position with regard to the quality and quantity of their training equipment and facilities, including the types of trainers available and training methodologies employed;

(v) the determination of the level and types of training programmes required by mode, the target group to be trained (qualitative and quantitative) and the curriculum for each training category and target group; and

(vi) the long-term and short-term recommendations, by mode, on actions to be taken at national, subregional and regional levels by government ministires, transport agencies; and training institutions to improve the present and future situation in meeting the demands for manpower and training needs in transport.

(b) Activities

Each modal consultant will be required to:

(i) prepare a detailed work programme for the survey in his/her mode of specialization;

(ii) prepare a questionnaire to be sent to African countries;

(iii) carry out a familiarization exercise, at the ECA, going through relevant reports and documents on studies and surveys, which are available on transport and other related disciplines, and undertaking consultations regarding the issues in question;

(iv) undertake missions to selected African countries to visit the relevant government ministries, transport agencies and their training institutions; as may be required, for the collection of statistical data and other information. The consultants will also be required to visit inter-governmental training institutions and organizations specialized in transport and/or manpower development;

(v) prepare mission reports;

(vi) prepare a draft survey report based on statistical data and information collected during familiarization and field missions; and

(vii) prepare a final survey report (as indicated in paragraph 5 (a) project output).

6. Project inputs

(a) Project inputs will be as follows:

(i) Consultants (10)	Duration (Months)	Dates (June-December)
One air transport consultant (team leader)		
Two road transport consultants	6	6mm 1985
Two rail transport consultants	6	12mm 1985
Two inland water transport Consultnts	6	12mm 1985
Two maritime transport consultants	6	12mm 1985
One air transport consultant	6	6mm 1986

(ii) Mission travel

The consultants will be stationed in Addis Ababa for the duration of the study and will be expected to visit selected African countries within the period of consultancy work.

(b) Government inputs

(i) The governments to be visited are to provide office space, furniture and necessary equipment, supplementary secretarial services, communications, necessary statistical data and information, arrangements for visists within their countries and local transport in the place to be visisted;

(ii) The governments are to designate counterparts, as appropriate from their national staff to assist the consultants.

(c) ECA inputs

ECA as the executing agency of the project will designate a transport expert as project officer responsible for technical back-stopping, monitoring and co-ordination of overall project activities.

ECA will also provide office space, furniture, some equipment and secretarial services while the consultants are in Addis Ababa.

(d) Any other agency's inputs

The specialized agencies of the United Nations and the African international and inter-governmental organizations will be called upon to provide assistance, as and when required, in providing information and data and to hold discussions on manpower and training problems in transport.

7. Evaluation plans

A draft report will be submitted for evaluation before the preparation of the final report.

8. Envisaged follow-up

The findings and recommendations of the project are to serve as a basis for the planning and development of manpower and training needs for senior and middle management, administrative, and technical staff in all modes of transport in the region at national, subregional, and regional levels.

9. Probable date of commencement and duration of the project

The consultants should start work on 1 June 1985 for a period of four to six months. The preparatory activities by the team leader for the project is to start as soon as practicable but not later than 1 March 1985.

10. Duty station of the consultants and places where work on the project is to be undertaken

The duty station of the consultants will be Addis Ababa, but they will be expexted to travel to selected countries in the region.

JOB DESCRIPTION

Transport Consultants (Roads, Railways, Inland Water, Air and Maritime Transport)

They should have an advanced degree in a recognized transportation discipline with at least five years of experience in transport manpower planning and/or training. Familiarity with transport manpower problems in Africa is desirable and a practical knowledge of transport manpower development policies would be an advantage. Fluency in English or French with drafting abilities and good working knowledge of the other language is required.

Under the overall direction of the Chief, Transport, Communications and Tourism Division of the ECA, their duties will be as follows:

(i) preparation of a detailed questionnaire (after a briefing at ECA) for the assessment of problems of manpower and training needs in transport by mode;

(ii) review of all relevant documents available at ECA;

(iii) undertaking field missions to selected African countries for the collection of statistical data and information on manpower and training needs of the transport modes included in the survey. The missions are to include visits to modal transport training institutions and those intergovernmental and international organizations with specialization in transport;

(iv) assessment of the current situation in manpower and training needs and the determination of the types and levels of training required for the short-term and long-term improvement of the performance as necessary for each mode;

(v) assessment of the performance of each mode in relation to manpower and training needs in accordance with the outputs as given in paragraph 5 (a) of this terms of reference for review of the ECA project officer and staff in TCT Division in accordance with the outline prepared by the team leader.

Each modal expert will prepare a draft modal report including recommendations and conclusions which the team leader will use to prepare a draft final report.

The draft report is to be prepared in Addis Ababa in consulataion with the ECA Project Officer and modal experts in the Transport, Communications and Tourism Division.

ANNEX 2

LIST OF COUNTRIES VISITED AND OFICIALS MET
DURING FIELD MISSIONS

ROADS AND ROAD TRANSPORT
GHANA

Ministry of Transport & Communications

1. Dr. W. Addote - Director
2. Mr. E.A.Kwakye - Princpal Planning Cfficer (Transport Planning Unit)
3. Mr. Twumasi - Ankara Selby - Planning Officer

Ministry of Roads and Highways

Mr. L. Alawa - Chief Director (Technical)

Ghana Highway Authority

1. Mr. K.A.Sam - Deputy Chief Executive
2. Mr. M.G.Anafi - Chief Planning Engineer

State Transport corporation (STS)

1. Mr. Tache-Mension - Managing Director
2. Mr. E.E.Bannerman - Traffic Manager

Omnibus Services Authority (OSA)

Mr. E.Coleman - Managing Director

KENYA

Ministry of Transport & Communications

1. Mr. S.M.Kiguru - Chief Engineer (Roads & Aerodromes)
2. Mr. George Wabuke - Chief Superintending engineer (Construction)
3. Mr. S.Asfaw - Chief engineer (Planning)
4. Mr. R.Wakori - Ag. Senior Superintending Engineer (Planning)
5. Mr. D.E.Mwasi - Chief Superintending engineer (Maintenance)
6. Mr. Henry Kahigu - Registrar of Motor Vehicles
7. Mr. R.N.Karimi - Principal, Staff Training Department

G.K.Browthers (Transporters)

Mr. C.Thuo - General Manager

MAURITIUS

National Transport Authority

Mr. Dhiraj Rommoah - Transport Inspector

Ministry of Works

Mr. Rajahogopal - Principal Engineer

National Transport Authority

1. Mr. D. Romooah - Senior Road Transport Inspector
2. Mr. Mohaks Gobin - Assistant Transport Supervisor
3. Mr. A. R. Nabeebaccus - Transport Planner
4. Mr. A. Bachraz - Administrative Officer, Mauritius
5. Mr. A. Khoykatty - Transport Supervisor
6. Mr. A. Kansmally - Senior Statistics Officer

Ministry of Works

1. Dr. R.N.Beedassy - Minister for Works
2. Mr. C.Cnan War Thuen - Permanent Secretary for Works
3. Mr. G. Harry - Contract Engineer for New GRNW Bridge

United Bus Services

Mr. S. Ramjan - General Manager and Financial Controller

National Transport Corporation

1. Mr. Komarduth Hurry - Personnel Officer
2. Mr. Dowlatrao Gumgaram - Mechanical Engineer
3. Mr. Dev. Rajan Daliah - Traffic Manager

Ministry of Education

Mr.Suresh Munbodh - Chief Education Officer (Vocational and Technical).

Traffic Management Unit - Port Louis

1. Mr. Reychard Ramjam - Ag. Principal Engineer, Ministry of Works.
2. Mr. A. Gopaul - Traffic Engineer, Ministry of Works

Triolet Bus Service

Mr. Boodram Nundlall - General Manager

NIGERIA

Federal Ministry of Planning

Mr. Abe - Planning Officer

National Transport Co-ordinating Department

1. Dr. Abebayani - Director
2. Dr. O.J.Rapu - Chief Planning Officer
3. Mr. Adinuga - Chief Planning Officer
4. Mr. M.O.Ighile - Planning Officer

Federal Ministry of Works

Eng. S.O.Okin - Director of Planning

Lagos Ministry of Works and Transport

1. Eng. M.P.Akintayo (Design)
2. Eng. M.A.Egbeolu (Traffic)

Messers Kampsax (Nigeria) Ltd.

Mr.L.N.Diedi - Managing Director

World Bank Regional Office, Lagos

G. Faillace - Senior Operations Officer

SIERRA LEONE

Ministry of Transport & Communications

1. Hon. Dr. A.F.Joe Jackson - Minister of Transport
2. Mr.S.K.Bart-Williams - Permanent Secretary
3. Mr. J.Sandry - Deputy Secretary (outgoing)
4. Mr. F.Bockari - Senior Planning Officer

Ministry of Works

1. Mr.S.E.Taylor Lewis - Professional Head
2. Mr. Garber - Chief Engineer (maintenance)
3. Mr.A.G.Beckley - Project Co-ordinator (IBRD Second Highway Project)

Road Transport Corporation

1. Mr. Davies -Acting General Manager
2. Mr. Leuchenderg - Technical Adviser

SWAZILAND

Ministry of Works & Communications

1. Mr. Andrew J.B.Muthembu - Ag. Chief Engineer
2. Mr. Trevor Barry - Senior engineer
3. Miss D.E.Ginindza - Planning Officer
4. Mr. W. Khnene - Senior Planning Officer

Swaziland United Transport Ltd.

Mr. Philip V. Dlamini - Personnel Manager

Central Transport Authority

1. Mr. P.P.M.Muhamali - General Transport Manager
2. Mr. P.D.Dlamini - Senior Mechanical Engineer

Road Transport Board

Mr. Gumede - Executive Secretary

ZAMBIA

Ministry of Power Transport & Communications

1. Mr. F.D.Tumeo - Senior Deputy Secretary
2. Mr. L. Bwalya - Assistant Secretary
3. Mr. G.D.Mwanza - Shipping Officer
4. Mr. G. Banda - Transport Economist

Ministry of Power Transport & Communications

1. Mr. R.J.Lungu - Senior Manpower Development Officer
2. Mr. J. Goma - Transport Officer

Ministry of Works and Supply

Mr. T. Ngoma - Director of Roads

Road and Road Traffic Board

Mr. P.K.Kalinda - Executive Secretary

United Bus Company of Zambia (UBZ)

Mr. A.A.Zimba - Personnel Manager

Contract Haulage

Mr. Leonard C. Soko - Technical Services Manager

Zambia Industrial & Mining Corporation (ZIMCO)

Mrs. S. Simela - Ag. Executive Assistant (Administration)

Road Traffic Commission (MCOPTC)

1. Mr. G.H.I.Nakaundu - Deputy Commissioner
2. Mr. A.S.Chumpuka - Assistant Commissioner
3. Mr. E.H.Kaite - Assistant Commissioner.

ZIMCO Institute of Management at Mimosa

1. Mr. A.S.Kafuta - Director
2. Mr. N. Canandha - Deputy Director
3. Mr. S.Rajaran - Head, Management Training

Economic Commission for Africa (MULPOC Office) Lusaka

1. Dr. B.C.Gondwe - Ag. Officer in charge
2. Mr. K.V.Knezi-Nke

Management Services Board

1. Mr. Mataka - Ag. Director
2. Mr. Joe Kariuki - Chief Consultant and Adviser (CFTC)
3. Mr. A.K.De - Chief Consultant (CFTC).

RAILWAYS & RAIL-TRANSPORT
BOTSWANA

1. Miss S.Mugetwa - Co-ordinator ECA activities
2. Mr.J.W.Kumah - Programme Advisor

Ministry of Works and Communications Department of Railways - Gaborone

1. Mr.N.C.Fwing - Railway Implementation Officer
2. Mr. Satiser Shanker - Railway Project Co-ordinator;
3. Mr.C.K.Ramachandra - Chief financial Controller (Railway Project);
4. Mr. Smith - Transport Planning Officer

Botswana Railway Training Centre, Francistown

1. H.D.Cruickshank - Traffic Instructor (Station Masters & Stations Foreman);
2. D.Aberholzen - Traffic Instructor (Guards & Shunters);
3. N.Peck - Instructor of Railway Commercial Courses;
4. Roy Massey - Enginemen (Drivers) course Instructor);
5. Om Mochra - Enginemen (drivers) course Instructor;
6. E.D.G.Smith - Platelayers (Permanent Way) Course Instructor.

Institute of Development Management
Mrs. Rose L. Pule - Senior Lecturer.

ETHIOPIA

At Addis Ababa Headquarters of the Djibouti - Ethiopian railway

1. Mr.Channie Tamiru - Directeur General CDE;
2. Mr. Sahlu Mechecha - personnel Director;
3. Mr. Tium Tekie - Head of Administrative Division
4. Mr. Tigeste Gezahegn (Administrative Assistant Trainee);
5. Mr. Girma Zeleke (Head of Training & Recruitment)

In Dire Dawa

1. Mr. Idris Abdulrahim - Personnel Representative of Director General in Dire Dawa
2. Mr. Ahmed Mohamed (Head of Locomotive Department)
3. Mr. Assefa Melaku - Machine foreman

KENYA

Ministry of Transport and Communications

Mr. C.E.Odera - Under Secretary

Kenya Railways Headquarters

1. Mr. J.Mimano - Managing Director;
2. Mr.J.Mudhume - Deputy Managing Dirctor;
3. Mr. N.Atingo - Personnel Manager;
4. Mr.M.Alkizim - Chief Mechanical & Electrical Engineer;
5. Mrs. E. Thimba - Manpower & Training Officer

The Railways Training School

1. Mr. D.Magaka - principal RTS;
2. Mr.P.W.Olago - Vice-Principal RTS

SWAZILAND

The Ministry of Works and Communications

Mr. Kenneth Khumalo - Under Secretary i/c of transport

Swaziland Railway Headquarters - Mbabane

1. Mr. N.D.F.Clabbert - Chief Executive Swaziland Railway;
2. Mr.B.N.Fakudze - Director of Personnel & Administration, Swaziland Railways
3. Mr.M.D.Chongwe - Personnel & Administrative Assistant;
4. Mr. Kamal Mathur - Chief Mechanical Engineer

Swaziland Railway Training Center -SIDVOKODVO

1. Johnson, S.Mcongwane - Training Manager;
2. Staff of the training centre including Mr. Claude Stephen of SOFRERAIL who is on secondment to Swaziland Railway Training Centre financed by EEC

ZAMBIA

ECA MULPOC - Lusaka
Mr. Babileh - Resident Representative

Ministry of Power, Transport and Communications - Lusaka
Mr. N.B.Nyoni - Permanent Secretary

Headquarters Zambia Railways - MABWE

1. Mr. M.S.Chankaya - Manager Corporate Planning;
2. Mr.J.N.Musenge - Asst. Corporate Planning, Manager (Admin.)
3. Mr. F. Mwangira - Gen. Corporate Planning Officer;
4. Mr. L.K.Mwandu - Personnel Manager;
5. Mr. Leonard Mosfwa - Asst. Chief Mechanical Engineer;
6. Data Processing Manager - Mr. C.G.N.Kampamba
7. Staff of Purchasing & Stores Dept. - Messers Tembo and Lubasi

Zambia Railways Training Center - Kabwe

1. Mr.P.Chewe - Advisor to Managing Director (currently on special assignment as in charge of Training Centre)
2. Mr. E. A. Nyoni - Asst. Principal (Main School)
3. Mr. N.Lubasi - Asst. Principal (Engineering)

ZIMBABWE

Headquarters of the National Railways of Zimbabwe - Bulawayo

1. Mr. C.L.D.Msimbe - Asst. General Manager (Manpower)
2. Mr.L.Binzandadi - Manager Manpower Resources;
3. Mr. T. Viki -Asst. Manager Manpower Planning (and co-ordinator of the Consultant's visits);
4. Mr. A.L.Dube - Public Relations

N.R.Z.Training Center - Bulawayo

1. Dr. L.Mpande - Asst. Manpower Manager - Training
2. J.P.Mashoma - Gen. Manpower Officer (Technical)
3. P.Knowles -Gen. Manpower Officer (T)
4. Mr. Mapani - Ag. Manpower Asst. Research & Development

INLAND WATER TRANSPORT

ANGOLA

1. Mr. Guilleppeno Penez Arguile - Programme Officer, PNUD, Luanda
2. Mr. Joa Silva Vicente- Director of Maritime Training Centre
3. Mr. Joa dos Santos Comes - Co-ordinator Safety Maritime
4. Mrs. Anna Maria de Bandes - Programme Officer
5. Mrs. Margerida Teixera - Programme Assistant

BOTSWANA

Ministry of Trades and Communications:

Mr. F.Musey - Senior Planning Officer

Ministry of Mineral Resources and Water Affairs.

1. Mr. N. Thipe - Senior Planning Officer
2. Mr. B. Khupe - Senior Hydrologist

BURUNDI

1. Mr. St. Makaha - Directeur de voie navigable, Ministere de transports
2. Mr. P.Munyembar - Directeur des organisations internationales Ministere des Affaires Etrangeres

REPUBLIQUE-UNIE DU CAMEROON

1. Mr. Fanady Diallo - Expert en transport, MULPOC, Yaounde
2. Mr. Dindey - Directeur Adjoint des transports, Ministere des transports, Yaounde
3. Mr. Moudouthe Charles M. - Chef Service Securite Maritime et fluviale Direction du Maritime merchande, Douala
4. Mr. Le Brishoual - Directeur general adjoint charge des etudes office nationale des ports du Cameroun, Douala
5. Mr. Jean-Claude Gay - Directeur adjoint S.D.E.G.A. Agents de C.T.C.Douala

CENTRAFRICAINE REPUBLIQUE

1. Mr.Simon Sakibede - Director General of ACCF
2. Mr. R.Le Guennec - Technical Adviser - Director general of ACCF
3. Mr. R.Schilich - Responsible for the centre of professional training

CONGO

1. Mr. Jacque Forceville - Expert
2. Mr. Jean Marie Kouakoua - Director of the Technical School in Brazzaville

EGYPT

1. Mr. Ashraf Shams El Dir - UNDp Cairo
2. Mr. Yehia el Shaaramy - ILC, Area Office in Cairo
3. Mr. Mahmoud R. El Jounsy - Under Secretary Ministry of Transport, General Dirctor of C.P.I.I.W.T.
4. Mr. Tewfik Mahsen Wagif - Chairman, Ministry of Transport
5. Mr. Eng. Ali Porahim - Chairman of River Transport Company
6. Mr. Emad Ghanem - General Manager of River Transport Company
7. Mr. Asar El Nabi - Training Section, Central Training Institute for Inland Water Transport Cairo.

GABON

1. Mme Joah E. Clemenceau - Assistant Rep. Res. PNUD Libreville
2. Georges-Aime Mathas - Directeur general de la marine marchande, Ministere des transport
3. Mr. Jean Pierre Branbyre - Conseilleur du Ministre d'Etat, Ministere des transports
4. Mr. Goulogane J. Robert - Administrateur des affaires maritimes
5. Mr. Ekomie Bessoit - Administrateur des affaires maritimes

THE GAMBIA

1. Mr. Michael Ayala - Assistant Res. Rep. PNUD Banjul
2. Mrs. Tambayawg Fatoumata - Programme Assistant UNDP Banjul
3. Mr. A.K.N'Jai - Under Secretary, Ministry of Economic Planning and Industrial development
4. Mr. Baboucah M. Sallah - Captain, Managing Director, Gambia River Transport Company

GHANA

1. Mr. Andrews Jaylop - Programme Officer UNDP, Accra
2. Mr. A.E.Gota - Director of Operation, Volta river authority
3. Dr. W.Adole - Chief Planning Officer, Ministry of Transport and Communications

GUINEA

1. Mme Sohma Keita - Assistanteau Programme Conakry PNUD
2. Mr. Chaikou Yaya Diallo - Directeur division CEA/PNUD Secretariat d'Etat charge de la cooperation internationale
3. Mr. Alpha sow - Chef Cabinet, Ministere des Transports
4. Mr. Ali Bocap Cisse - Attache Cabinet
5. Mr. Ciradiou Balde - Directeur General De l'Hydraulique MAEFFARA
6. Mr. Aliou K. Diallo - directeur adjoint de l'hydraulique MAEFFARA
7. Mr. Andre Musy - Expert d'hydraulique, Ministere de l'agriculture des eaux EDNET et FAPA

LIBERIA

1. Mrs. Amalia Ward - Planning Officer, Ministry of Planning and Economic Affairs (MPEA)
2. Mr. Edward Peal jr. - Infrastructure and Transport Ministry M.P.E.A.
3. Mr. Captain D.C.Gilpin - Commandant a.i. Union Marine Training Institute Mano River Union, Manhall City
4. Mr. Paillace M. - Hydrological Division, Ministry of Lands and Mines

MADAGASCAR

1. Mr. Ramaniraka Rakotonirina - Chef du Service des transports routiers et fluviaux
2. Mme. Helene Ravanjanahary - Attache d'Administration
3. Mr. Rigobert Tina Rakotoarinvitina - Attache d'Administration
4. Mr. Richard Rajaonariseheruo - Adjoint d'Administration
5. Mr. Samuel Andranarison - Directeur technique de SEPT a Tamatave.

MALAWI

Ministry of Transport and Communications:
1. Mr. Gordon Clark
2. Mr. T. Kamba

MOZAMBIQUE

Ministry of Ports, Railways and Mrchant Marine

1. Mr. Sesaluxo Ganeta - Director do Servico de Navico Hyrografia et Balizagen
2. Mr. C. Onargy Omergy - In-Charge of Inland Navigation
3. Mr. C.G.Borkman - Maritime Consultant in Training

NIGER

1. Mr. Ibrahim Thiain - Expert, MULPOC, Niamey
2. Mr. Jean Marie K. Ziziudohone - Directeur des recherches et de la planification, Commission du fleuve Niger, Niamey
3. Mme Diakite Fatima - Assistante du directeur - Societe nigerienne des transports fluviaux et maritime

NIGERIA

1. Mr. Wolfgang Schpamum - Programme Officer- UNDP Lagos
2. Mr. Capt. E.A.Anaeji - Assistant Director navigation, Inland waterways Division, Federal Ministry of Transport, Lagos
3. Mr. N.D.Popuala - Permanent Secretary - Federal Ministry of Water Resources Lagos
4. Mr. O.A.Adeyanya - Under Secretary Federal Ministry of Transport Lagos

RWANDA

1. Mr. Claude Bahiutasi - Secretary General of the Ministry of Post and Communications
2. Mr. Ashamase Senyoni - Ministry of Post and Communications
3. Mr. Faustin Ashimiyina - Ministry of Post and Communications
4. Mr. Nestor Ilyabenda - Ministry of Post and Communications

SENEGAL

1. Mlle Landey - Assistante au programme, PNUD, Dakar
2. Mr. Badara Diakhate - Administrateur des affaires maritimes, Ministere de l'equipment, Dakar
3. Mr. I. Dyagne - Directeur, l'ecole de formation maritime, Dakar
4. Mr. Amadou Sounkana - Specialiste, moyens audivisuels, Ministere de l'education nationale, Dakar

SIERRA LEONE

1. Mr. Matsuki Hiratsuko - Assistant Res. Rep. UNDP Freetown
2. Mr. Brockari - Permanent Secretary, Ministry of Transport
3. Mr. P.J.Goodwin - Deputy General Manager, Sierra Leone Ports Authority
4. Mr. C.A.Brown Mapke - Deputy Managing director, Sierra Leone Produce Marketing Board
5. Mr. Ronald F. Campbell - Infrastrucutre planner, Ministry of Development and Economic Planning Section, Freetown
6. Mr. Dr. S. Hapopualsingaw - Project Manager, Ministry of Development and Economic Planning, Freetown

TANZANIA

1. Mr. S. Minya - Director of Planning, Ministry of Communications and Transport
2. Mr. Kalid S. Mtwangi - Assistant Chief Traffic Manager
3. Mr. E.Makoi - Chief Mechanical Engineer of Tanzania Railways corporation
4. Mr. Ageton simba Ulanga - Manpower Division Manager

Ministry of Communications and
1. Mr. K.N.Masoi
2. Capt. Eric Jacobsen
3. Mr. E.N.Makoi
4. Capt. P. Keram
5. Capt. E. Forobn
6. Capt. P.L.Nielsen

UGANDA

Mr. Charles Karamagi - Chief Planner, Uganda Railways Corporation

ZAIRE

1. Mr. Mbonu Nsuadi - Director of the Education Division
2. Mr. Pj De Wilde - Controlling Officer of CNATRA
3. Mr. Pontonneaux - Responsible for the Inland Navigation School in Kinshasa

ZAMBIA

1. Mr. M. Liuwa - Shipping Officer, Ministry of Foreign Transport and Communications

SOUTHERN AFRICA TRANSPORT AND COMMUNICATIONS COMMISSION (SATCC)

Capt. Torsten Able - Responsible for Ports + Navigation

NATIONAL DIRECTORATE FOR WATER

1. Mr. I. Leonardo
2. Mr. Jan Suzuka

AIR TRANSPORT

EGYPT

Egypt Air

1. Mr. Abel H. El Chawabry - General Manager (Training)
2. Mr. Metwaly Honsury - General manager (Admin.)
3. Mr. Magdy Yehiea - General Manager (Personnel)
4. Mr. Sami - Manager Services Training.

ETHIOPIA

Ethiopia Airlines

1. Mr. Woldegabriel Tsehai - Deputy General Manager (Marketing)
2. Mr. Bisrat Negatu - Deputy General Manager (Corp. Planning and Dev.)
3. Mr. Hailu Ibsa - Director, Marketing Services
4. Mr. Yemane Bisrat - Manager, Marketing Training
5. Mr. Makonnen Astatke - Manager, Training Co-ordination
6. Capt. Merid Abate - Deputy General Manager (Admin.)

KENYA

Kenya Airways

1. Mr. Kibet - Manager Administrative Services
2. Mr. J.P.Kabui - Chief Manpower & Training Officer
3. Mr. Oltetia Ole Sapai - Manpower & Training Officer
4. Mr. J.J. Adongo - Manager, Corporate Planning
5. Mr. S.K.Mgorachu - Supt. of Operations
6. J.M.C.Miumo - Senior Technical Instruction

African Airlines Association (AAA)

- Mr. Kassa Eskindir - Technical Director

International Civil Aviation Organization (ICAO)

- Mr. Robert Petier - Technical Assistance Officer

Directorate of Civil Aviation

Mr. T.G.Orucho - Assistant Director

MARITIME TRANSPORT

ETHIOPIA

1. Mr. Teferra Abebe	Head Administration, Marine Transport Authority
2. Mr. Gebrekidan Kassay	Manager, Planning & Business Div Ethiopian Shipping Line Corporation
3. Mr. Mengistu Girma	Ag. Head Administration Ethiopian Shipping Line Corporation

GHANA

1. Mr. F.C.Ameyaw	Ag. Chief Director, Ministry of Transport & Communications
2. Capt. E.A.Awuviri	Director, Ghana Ports Authority
3. Mr.G.A.Kainyali	Chief Personnel Officer, Ghana Ports Authority
4. Mr. Ebenizer	Personnel Manager, Black Star Shipping Corporation
5. Mr. J.K.Mensah	Chief Administrative Officer Regional Maritime Academy, Nungua, Accra

KENYA

1. Mr. C.E.Odera	Under Secretary, Ministry of Transport and Communications
2. Mr. P.C.Okundi	Managing Director Kenya Ports Authority
3. Mr. Omar M. Omar	Acting Principal Bandari College

LIBERIA

1. Hon Robert Neal	Asst. Minister of Sectoral Planning
2. Mrs. K.Liberty	Director of Economic Planning
3. Ms. A.Akinselure	Chief of Manpower & Employment Unit
4. Hon. Moses P.Waris	Managing Director, National Port Authority
5. Mrs. Clara Lymes	Training manager National Port Authority
6. Mrs. Elizabeth Sherman	Asst. Commissioner for Maritime Affairs, Bureau of Maritime Affairs
7. Capt. Armett E.Hill	Principal, Mano River Union Marine Training Institute

NIGERIA

1.	Mr. Abare	Principal Secretary, Ministry of Transport & Aviation
2.	Mr.E.O.Oyefodunrin	Asst. General Manager Nigerian Ports Authority
3.	Mr.I.B.ABezi	Personnel Manager, Nigerian National Shipping Line
3.	Mr.I.Hussein	Rector, Nigerian Nautical College

SEYCHELLES

1.	Mr. James Ferrari	Permanent Secretary Ministry of Transport
2.	Mr. Sam Andrade	- Director, Victoria Port, Mahe
3.	Mr. J.P.D.Grandcourt	Managing director Union Lighterage Col.
4.	Ms. Janette D'Offay	Chief Economic Co-operation Officer Ministry of Economic Planning and External Relations
4.	Mr. Willy Confait	Principal Asst. Secrtary (Manpower Development) Ministry of Education

TANZANIA

1.	Mr. A.Kida	Asst. General Manager Tanzania Harbours Authority (TAH)
2.	Mr. Msangi	Director of Manpower Development, TAH
3.	Mr. T.B.Bweyongeza	Ag. Director Shipping Ministry of Transport & Communications
4.	Mr. Eric Jacobsen	Adviser to Government on Maritime Training
5.	Mr.M.Buhatwa	General Manager (Tanzania) CHICTASHIP
6.	Mr. C.Muya	Senior Personnel Officer MADACO
7.	Mr. Karani	General Manager -MADACO
8.	Mr. Karani	General Manager - TACOSHILI
9.	Mr. Bernstein	Course leader DMTU

OTHERS

1.	Mr. Njanko Njie	Secretary General, Port Management Association of West and Central African (Lagos)
2.	Mr. Seyoum Tegegn Work	Secretary General Port management Association of Eastern and Southen Africa (Addis Ababa)
3.	Mr. A.Naanaa	Director, Regional Arab Institute for Ports and Shipping (Tunis)

COTE D'IVOIRE

1. M.Blavec, Inspecteur generale de l'Engseignement et de la formation maritime
2. M. Sogodogo, Directeur general du GEMMA
3. M. Alphaise, Centre TRAINMAR D'Abidjan
4. M. Robyns, Directeur pedagotique de GEMMA
5. M.Gastaud Moisy de l'Academie Regionale des sciences et Techniques ede la Mer
6. M.Kone Karim, Directeur des Ressources humaines et de la reglementation maritime
7. M.Babe Pierre de l'OIC
8. M.Coulibaly Mamadou, Secretaire general de la SITRAM
9. M.Djamat Dubois, Chef service de la formation, Port Autonome d'Abidjan
10. M.Wala, Secretaire general de la CEMEAOC
11. Mlle Kruger Ilona, PNUD/Abidjan

MADAGASCAR

1. Mme Makury Rjason, Chef service de la Marine Marchande
2. M. Rajaonson Aod, Directeur de l'Ecole Nationale d'enseignment Maritime de Mahajanga
3. M.Marechal Marcel, Directeur de la pedagogie a l'ENEM
4. M. Ranjeva, Directeur Technique de la SMTM
5. M.Raseta, Sous-Directeur commercial de la SMTM
6. M.Raktondramboa, Directeur general de la CMN
7. M.Guillaume, Chef service des ports
8. M.Intsorou, Directeur general de TRANS 7
9. M. Zasy, Directeur general e l'AUXIMAD
10. M. Ranjatoelina, Directeur rattache a la Direction general e la SECREN
11. M.Olsen, Representant resident adjoint du PNUD
12. M.Guibeb, PNUD

MAROC

1. M. Tangi, Directeur des Relations Internationales, de la Formation et des Affaires Juridiques
2. M. Rafiky, Chef de la Division de la Cooperation Internationale
3. M. Husseini, Direction de la Marine Marchande
4. Mme El Hamzaoui, Direction de la Marine Marchande
5. Le Directeur de l'Institut Superieur des Etudes Maritimes
6. M.Mohamed Hassad, Directeur General de l'Office d'Exploitation des Ports
7. M.Sabbane, Directeur a la Direction du Developpement de l'ODEP

Commandant Plateau, Conseiller Technique Principal du Centre TRAINMAR de Casablance

8. M.De Casterle, Representat President Adjoint du PNUD - Tabat
9. M.Fatmi, Secretaire General du Comite Central des Armateurs Marocains.

Resident Representative, UNDP, in all the countries visited by the consultants for the coordination of the visits, including seeking government clearance for the missions and where applicable, provision of the necessary logistics.

LIST OF ACRONYMS AND ABBREVIATIONS

AFCAC	African Civil Aviation Commission
AFRAA	African Airlines Association
AMTA	Arab Maritime Transport Academy
ECA	Economic Commission for Africa
ECOSOC	Economic and Social Council
EDI	Economic Development Institute
ESAMI	East and Southern African Management Institute
GNP	Gross National Product
IBRD	International Bank for Reconstruction and Development
ICAO	International Civil Aviation Organization
ILO	International Labour Organization
IMO	International Maritime Organization
IPP	Improving Port Performance
ISCOS	Intergovernmental Standing Committee on Shipping
MINCOMAR	Ministerial Conference of West and Central African States on Maritime Transport
NORAD	Norwegian Agency for Development
PMAESA	Port Management Association of East and Southern Afirca
PMAWCA	Port Management Association of West and Central Africa
SATCC	Southern African Transport and Communications Commission
SIDA	Swedish International Development Authority
TRAINMAR	Training in Maritime Transport
UAR	Union of African Railways
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNTACDA	United Nations Transport and Communications Decade for Africa
UWIST	University of Wales Institute of Science and Technology

SAMPLE
RAILWAY MANAGEMENT PERFORMANCE IMPROVEMENT COURSE

OBJECTIVE: The objective of this seminar is for participants to acquire knowledge and practical skills as well as an appreciation of the experiences of other railways that have undergone adjustment and actual change, so that they may be able to better identify, design, implement and monitor policy and management measures which will assist their own railways to play their proper transport role efficiently and effectively

CONTENT: The seminar will be structured into learning blocks covering techniques and experience relating to
The role of railways and national transport policy; management and other information systems necessary for:
- financial analysis
- traffic forecasting
- railway costing
- tariff making (pricing)
- line closure and service retention decisions

Planning:
- at the corporate level
- at the operational level, including workshops and track maintenance

Investment Analysis:
- cost benefit techniques
-equipment/motive power choice

Procurement:
-bidding and contracting procedures
- materials and inventory management

Staff Relations:
- manpower planning
-staff development

PARTICIPANTS The seminar will be of particular interest to: Staff of African railways in management level positions; officials of ministries of transport involved in the formulation of national transport policy generally and of railway policy in particular; officials in planning ministries or similar bodies responsible for evaluating major transport sector investments and of railway investment programmes especially; local staff of aid donors/financing institutions assisting railway development in Africa.

SAMPLE CONTENT OF TRAINING OF TRAINERS BASIC COURSE

Instructor training

Instructor training is to be divided into two segments:

(a) Techniques of instruction
(b) Mastering of particular body of knowledge

The instructor must know how to teach, as well as proficiency in the subject he is to teach. To become proficient in a given subject an individual must have worked in this area and must have acquired the appropriate body of knowledge.

Programme objective To provide present and future instructors with skills, abilities, techniques and experiences which enable them to plan, develop and present meaningful courses.

Participants: Those individuals selected to work as full-time or part-time instructors for the ports training programmes

Length of programme:

- Developing course objectives
- Assessing trainers' knowledge, skills and background and course objectives
- Developing course outline
- Developing course materials
- Principles of learning and trainee motivation
- Lecturing as a method of teaching
- Preparation of lesson plans
- Testing and evaluation.

TRAINMAR DEVELOPED COURSES

	COURSE	CENTRE DEVELOPED	FIRST DELIVERY
1.	Commercial Aspects of Maritime Law	Abidjan	August 1981
2.	Management of Containerized Shipping	Bombay	December 1981
3.	Cost Control for Shipping Management	Bombay	September 1983
4.	Port Planning	Geneva	January 1981
5.	Port Operations for Supervisors	Mombasa	July 1981
6.	The Port and its Users	Mombasa	August 1981
7.	General Cargo Operations in a port Section	Mombasa	October 1983
8.	Management of Container Terminal Operations	Manila	August 1983
9.	Port Administration for Supervisors	Mombasa	August 1983
10.	Cost Control in Ports	Madras	December 1983
11.	Management of Equipment Maintenance	Geneva	December 1983-1984
12.	Cargo Storage and Warehousing	Tunis	November 1983
13.	Multimodal Transport	Geneva	april 1984
14.	Training of Freight forwarders	Abidjan	November 1983

Improving Port Performance (IPP) course

IPP is a project organized by UNCTAD and financed by SIDA. It forms part of a concerted effort by UNCTAD to encourage developing countries to give higher priority to maritime training, and to assist local port management institutes to develop a greater training capability. IPP has three stages:

-The centralised preparation of validated training materials for the delivery of courses by local instructors;

-The training of instructors from Port Management Institutes to enable them conduct UNCTAD developed courses in their own countries;

-The provision of further advice and assistance, as necessary, to help developing countries implement these training instructors from Port Management Institutes to enable them conduct UNCTAD developed courses in their own countries;

-The provision of further advice and assistance, as necessary, to help developing countries implement these training programmes.

The first course developed under this project entitled: Management of General Cargo Operations. The course consists of 18 audio-visual programmes which have been developed in 8 study units as follows:

Unit 1: Introduction to the Course
Unit 2: Measurement of Port Performance
Unit 3: The Ship Operations
Unit 4: The Quay Transfer Operations
Unit 5: The Storage operation
Unit 6: The Receipt/Delivery Operations
Unit 7: Operations Planning
Unit 8: Berth Management

The materials have been designed to provide an integrated course covering all aspects of general cargo operations.

IPP represents a relatively new concept in port management training; one that allows local training officers, with relatively minimum preparation, to conduct a series of high quality management courses in their own local training centres.

MOMBASA BANDARI COLLEGE COURSE IN MANAGEMENT OF PORT OPERATIONS

General objective: To provide skills and information that would lead to more efficient port operations

Participants: Port Managers, Port Operations Officers, Senior Management and Senior Administrative Staff.

Length of programme: Four weeks

Brief outline of content
- Methods of Improving Port Operations
- Concept of Berth Throughput
- Operations Planning and Execution
- Collection and Analysis of Port Statistics
- Equipment Selection and Purchase
- Port Security and Safety
- Port Tariffs (Pricing)
- Cost and Financial Accounting for Ports
- Economic Aspects of Ports
- New Technology in Port Operations
- Documentation
- Utilization and Containerization
- Management Information Systems

COURSES OFFERED BY AMTA

The Arab Maritime Transport Academy grants the following certificates and degrees:

1. Certificate of Completion in Nautical Basic Studies
2. Certificate of Completion in Marine Engineering Basic Studies
3. Certificate of Completion in Radio and Electronics Basic Studies
4. Diploma in Radio and Radar
5. B.Sc. in Maritime Studies
   (a) Nautical Technology options
   (c) Economics and Management options
6. B.Sc. in Maritime Engineering
7. B.Sc. in Maritime Electronics

In addition to the above degrees and certificates, graduates of the Academy also obtain the Certificates of Competency. The issuance of these certificates is regulated by the Egyptian Ministry of Transport

Graduation requirements

1. Nautical Basic Studies

The Academy issues a certificate of completion in Nautical Basic Studies to cadets who successfully complete the following requirements:

(a) Phase one

The phase of the study is four semesters long and consists of all the basic and professional courses with one short summer training cruise. The cadet is required to complete 86 credit hours during this phase.

(b) Phase two

Long sea training for a period of 18 months during which the cadet is required to complete 15 credit hours.

(c) Phase three

Comprehensive review of all subjects for one semester in preparation for the professional examination. The cadet is required to complete 21 credit hours during this phase, then take the examination for the Second Mate certificate of competency.

(d) The cadet must achieve a minimum grade point average of 2.00 in each phase in order to graduate.

2. Marine Engineering Studies

The Academy issues a certificate of completion in Marine engineering Basic Studies to cadets who successfully complete the following requirements:

(a) Phase one

This phase of the Study is four semesters long and consists of the basic and professional courses with one short summer training cruise. The cadet is required to complete 86 credit hours during this phase.

(b) Phase two

Long Sea training for a period of 24 months during which the cadet is required to complete 20 credit hours.

(c) Phase three

Comprehensive review of all subjects for one semester in preparation for the professional examination. The cadet is required to complete 19 credit hours during this phase, then take the examination for the Marine Engineering Certificate of Competency.

(d) The cadet must achieve a minimum grade point average of 2.00 in each phase in order to graduate.

3. Radio and Electronic Studies

The Academy issues a certificate of completion in Radio and Electronic Basic Studies to cadets who successfully complete phase one of their studies and Diploma in Radio and Radar to those who successfully complete phases one and two as outlined below:

(a) Phase one - Radio and Electronic Basic Studies

This phase of the study is four semesters long and consists of all the basic and professional courses with one short summer training course. the cadet is required to complete 82 credit hours in order to obtain the certificate of completion in Radio Electronic Basic Studies.

(b) Phase two - Diploma in Radio and Radar

This phase of the study is two semesters long and consists of courses in the operation and maintenance of radio, radar and electronic navigational equipment. The cadet is required to complete 34 credit hours in order to obtain the Diploma in Radio and Radar.

The cadet must achieve a minimum grade point average of 2.00 in each phase in order to graduate.

II. B.Sc. Degree Studies

Admission to the B.Sc. degree programmes is based on the ability and outstanding performance by the cadets during phase one of their studies. Therefore the best students from all the participating countries have the opportunity to be admitted to the B.Sc. degree programmes at the Academy. B.Sc. candidates must have successfully completed Phase One (two years) of their studies with a minimum grade point average of 2.0 and have the approval of their sponsors.

It could be possible to accept cadets on their own expenses if there are vacant places at the Academy

B.Sc. Degrees are offered in:

1. Maritime Studies (Nautical Technology)
2. Maritime Studies (Economics & Management)
3. Marine Engineering
4. Marine Electronics Engineering

III. Upgrading studies

Upgrading studies are held twice a year, the First in September and the Second in February. Places have to be reserved one month prior to the start of each course. This study aims to prepare student to sit for competency examinations which are held four times every year by the examination cell in co-ordination with Egyptian Ports and Light Houses.

Admission requirements

A. Certificate of competency for Second Mate, First Mate and Master:

1. Second Mate Certificate

The requirements for admission to this course of study and to the qualifying examinations are:

(a) Candidate must not be less than 21 years of age
(b) Candidate must be a graduate of an approved maritime college where the basic and professional studies must be at least two years long.

(c) Candidate must have served at sea on foreign going ships for a period of not less than 18 months or equivalent period on home trade vessels.

Candidates who are not graduates of approved maritime institutions are exempted from items (b) and (c) above provided they satisfy the following requirements:

(i) They must hold the General Secondary School Certificate (Science Section) or the Certificate of the Technical Secondary School for Fisheries

(ii) They must have served on foreign going merchant ships for a period of four years.

2. First Mate Certificate

The requirements for admission to this course of study and to the qualifying examination are:

(a) Candidate must not be less than 22 years of age
(b) Candidate must be a holder of the Second Mate Certificate of competency
(c) Candidate must have served at sea for a period of one year after getting the Second Mate Certificate. His post must not be Junior to that of the third of the three watchkeeping officers serving on foreign going merchant ships.

Or

Candidate must have served at sea on a coastal vessel for a period of 18 months after receiving the Second Mate Certificate. His post must not be junior to that of first or only watchkeeping officer on board.

3. Master Certificate

The requirements for admission to this course of study and to the qualifying examinations are:

(a) Candidate must not be less than 24 years of age
(b) Candidate must be a holder of the First Mate ertificate of Competency
(c) Candidate must have served at sea for a period of two years after getting the First Mate Certificate. His post must not be Junior to that of the third of three watchkeeping officers serving on foreign going merchant ships.

OR

Candidate must have served on a coastal vessels as Master, for a period of two years after receiving the First Mate Certificate.

OR

Candidate must have served on a coastal vessel for a period of three years after receiving the First Mate Certificate. His post must not be junior to that of first or only watchkeeping officer on board ship.

B. Certificate of the Competency for Marine Engineer and Chief Engineer

1. Marine Engineer (Part A)

The requirements for admission to this course of study and to the qualifying examinations are:

(a) Candidate must not be less than 21 years of age
(b) Candidate must have passed the Technical Secondary School Certificate (Mechanical Electrical or Nautical) or has equivalent qualifications. Additionally the candidate must have served as mechanic or watchkeeper for a period of four years on foreign going merchant ships or the equivalent period on coastal vessels with at least 100 B.H.P. (Steam) or 500 B.H.P. (motor).

OR

Candidate must have served as an apprentice for a period of three years and six months in a ship building or ship repair yards, or on the operation and maintenance of power plant similar to those used on board ships.

2. Marine Engineer (Part B- Steam or Motor)

The requirements for admission to this course of study and to the qualifying examinations are:

(a) Candidate must not be less than 22 years of age
(b) Candidate must have satisfactorily completed a four year programme of studies in a recognised Marine Engineering College and must have served as an engineer or a sea going vessel for a period of 18 months after completing his studies.

OR

(c) Candidate must have a B.Sc. degree or its equivalent in Marine Mechanical or Electrical Engineering from a recognized university and must have served for a period of 12 months as an engineer on sea going vessels. Candidates with B.Sc Degrees in Naval Architecture or Marine Engineering or graduates from recognized

Marine Engineering Colleges are exempt from attending the upgrading course of study and are required to take the oral and the Engineering knowledge examination only.

Candidate with B.Sc. Degrees in mechanical or electrical engineering are also exempted from attending the upgrading course of study and are required to take the oral, the Engineering Knowledge and the Naval Architecture and Ship Construction examinations only.

OR

(d) Candidates must have passed the marine Engineer examination (Part A) and served on foreign going ships for a period of 24 months. It should be observed that at least 18 months of this period are spent on either steam or motor powered vessels according to the desired certificate.

A marine engineer who is certificated in steam propulsion plant for instance and wishes to qualify for diesel as well must serve for a period on coastal vessels provided that these vessels have the same type of propulsion plant the candidate is qualifying for.

(e) Candidates who are graduates of the Naval Academy with two years of study must have at least two years of sea service before being admitted to the required course of study and the qualifying examination.

3. Chief engineer (Part A)

Candidates applying for these upgrading courses of study and the qualifying examination must have already passed the Marine Engineer Examination (Part B).

Candidates who are certificated marine engineers with B.Sc. degrees in marine engineering or graduates of recognized Marine Engineering Colleges are exempt from taking the upgrading course of study of Chief engineer Examination (Part A).

4. Chief Engineer (Part B- Steam or Motor)

The requirements for admission to this course of study an the qualifying examination:

(a) Candidate must not be less than 24 years of age
(b) Candidate must have either passed the Chief Engineer examination (Part A) or be exempt from it
(c) Candidate must have served for 18 months on sea going vessels or equivalent period on coastal vessels as marine engineer independently in charge of watchkeeping duties. The vessels must be powered by main propulsion plants of not less than 200 B.H.P. (steam) or 100 B.H.P. (Motor).

The candidate must serve on vessels with the same type of propulsion plants as the one he is qualifying for.

A Chief Engineer who is certificated in either steam or motor, can, if, he wishes, take the examination in the other specialization provided he served for a period of not les than 9 months on foreign going merchant ships or the equivalent period on coastal ships. These ships must have the same type of propulsion plant the candidate is qualified for.

IV. Maritime studies

A. Admission requirements

1. Diploma in Maritime Transport

(a) The candidate must hold a university degree with preference to candidates with not less than two years experience in the field of Maritime Transport.

OR

Candidates with a Master Certificate of Competency (FG)

(b) The Candidate must have good command of the English language in both reading and writing.

Arrangements have been made with the University of Alexandria for the admission for the graduates of this diploma programme for a Masters degree. Graduates must have a B.A. degree in commerce and "B" average in their Diploma course. The University programme of the College of Commerce for the Diploma graduates.

Candidates can be accepted to study only one (or more) course(s) provided conditions 'a' and 'b' are applied to them. In this case they shall be granted attendancy certificate with grade.

2. Diploma in Maritime Law:

(a) Good command of the English Language in both reading and writing.

3. Training Programmes in Shipping and Ports

Candidates for these training courses must have certain amount of practical experience in the same field they are applying for.

4. Management Programmes

(a) First Supervising Level:

Candidate must be head of a section or has an equivalent post

(b) Middle Management Course:

Candidate must be a manager of department;
supervisor or ship's master

(c) Executive Management Course:

Candidate must be a director general for administration
in the maritime section.

SAMPLES OF COURSES OFFERED BY ESAMI AND RELEVANT TO TRANSPORT SECTOR

Project Planning and Management Division

1. Construction Projects Management
2. Construction Arbitration
3. Project Implementation course

Transport and Communications Management Division

1. Physical distribution Management
2. Rural Transport: Planning and Operations
3. Road Maintenance Planning and Management
4. Transport Investment Planning
5. Operations, Maintenance and Management of Road Transport Fleets
6. Management of Road Safety Programs
7. Senior level Roundtable on Transport Policy
8. Information Systems for Planning and Management in Transport
9. Trade Facilitation and Documentation Improvement
10. International Procurement and Contract Negotiations

Human Resources Management Division

1. Human Resources Management and Development
2. Advanced General Management
3. Training of Management Trainers Course
4. Workshop on Industrial Relations
5. Manpower Planning course.

Management Science Division

1. Stock Control and Ware-house management Techniques
2. Purchasing and Supplies Management
3. Management Analysis and Operations Research
4. Inventory Forecasting Techniques

Financial Management Division

1. Financial Management
2. Accounting and Finance for Non-Finance managers
3. Financial Planning and Control
4. Seminar in Investment Management

Marketing and Export Promotion Management Division

Marketing of Transport and Travel Services

PROGRAMME FOR CONVERSION OF
SELECTED MARITIME TRANSPORT
INSTITUTIONS INTO SUB-REGIONAL CENTRES

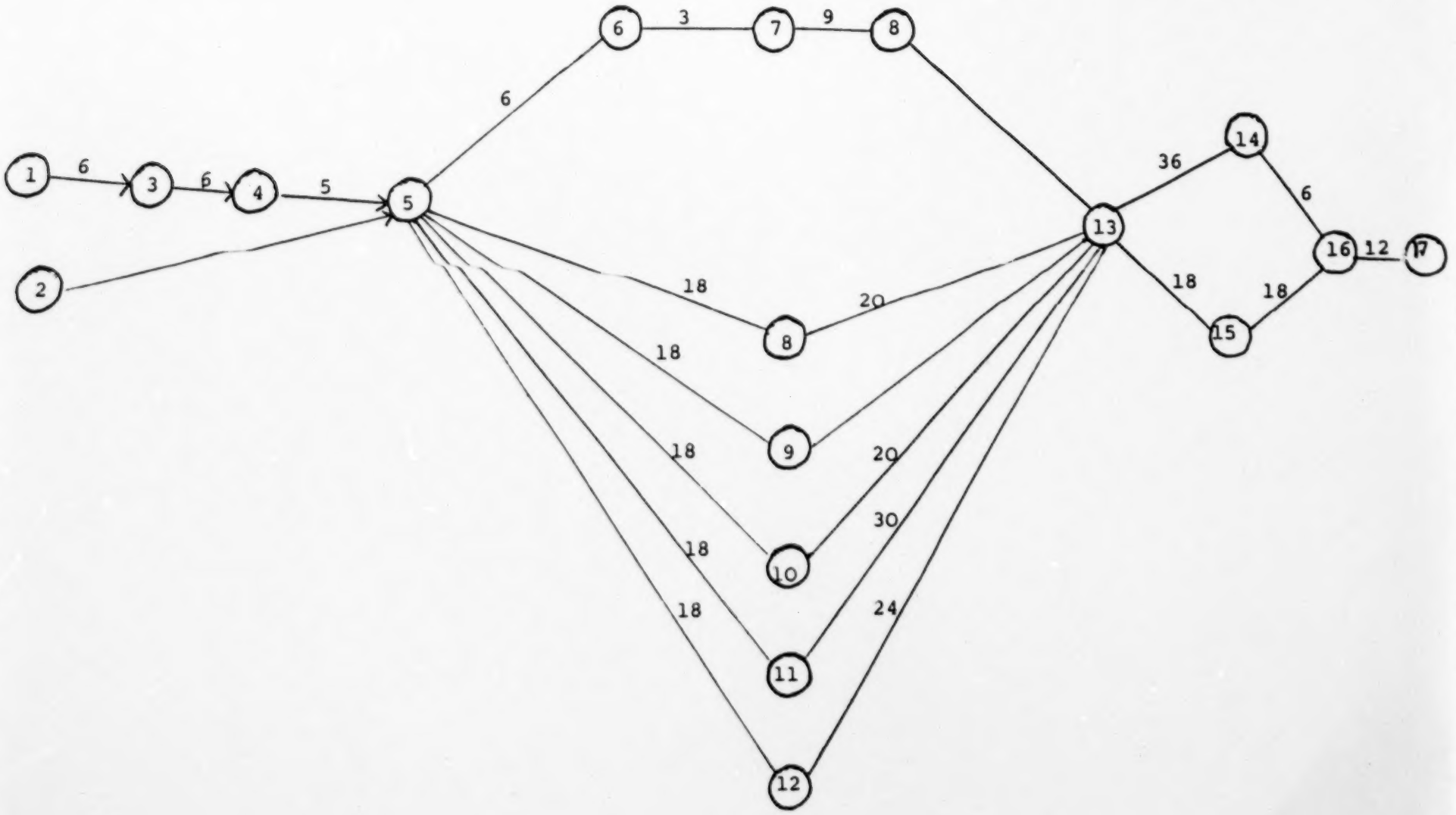
MANPOWER AND STAFF DEVELOPMENT PLAN

	TIME (Man Months)
1. Establishment and Agreement on Organisation Plan	6
2. Ongoing Programmes uninterrupted	
3. Select or confirm Principal	12
4. Establish Selections Board	18
5. Selection of Academic Dean	23
6. Selection of Head Maritime Studies	26
7. Selection of Head Engineering Studies	35
8. Selection of Head Radio Electronics, Head Nautical Science	53
9. Select administrative officer	71
10. Select lecturers	71
11. Incorporate course developers	71
12. Select Other Instructors	71
13. Instructor Training	71
14. Curriculum Development	91
15. Recruit Students	108
16. Start running new courses	126
17. First Evaluation	

MANPOWER AND STAFF DEVELOPMENT

CPN 2

ANNEX 9(b)



086-345

BIBLIOGRAPHY

1. Accelerated Development in Sub-Sahara Africa: An agenda for action: World Bank, Washington D.C. (1981)

2. World Development Report (1983) World Bank

3. UN Department of International Economics & Social Affairs (DIESA) 1982 Report

4. Lagos Plan of Action for the Economic Development of Africa 1980-2000 OAU, 1981; (see chapt. IV Pg. 37-43)

5. Kenya Railways: Training Requirements Study, Coopers & Lybrand Association 1985

6. ICAO Report 1977

7. ICAO Bulletin, 1984

8. Training for Public Administration and Management (World Bank Paper Number 584)

9. Descriptive Report: Ecole Superieure Africaine des cadres du Chemin de fer (ESACC)

   Union of African Railways Document No. 1

10. Studies on Maritime Transport 1984